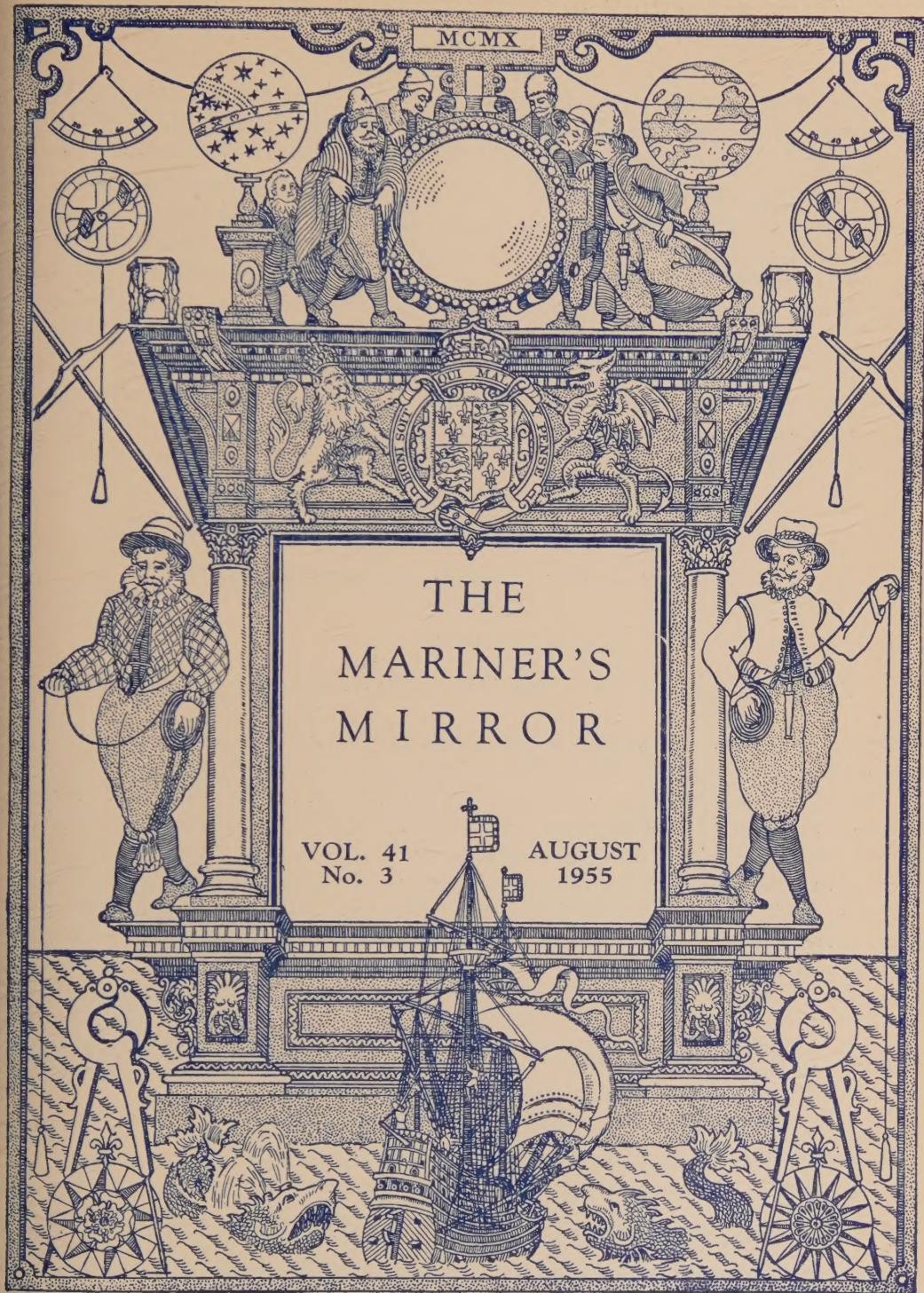


THE QUARTERLY JOURNAL of the SOCIETY FOR NAUTICAL RESEARCH



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Names of ships should be underlined to denote *italics*, and not written within inverted commas.

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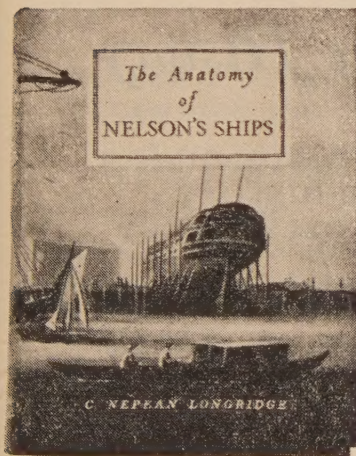
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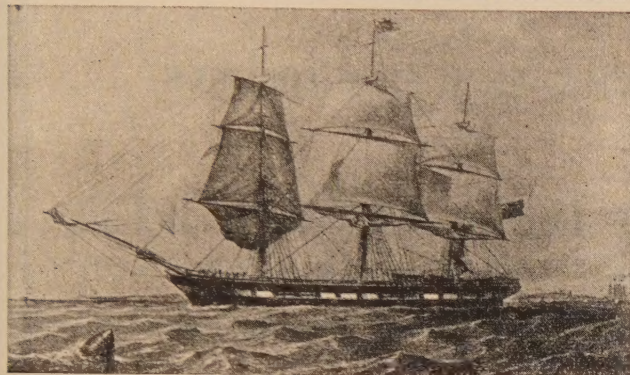
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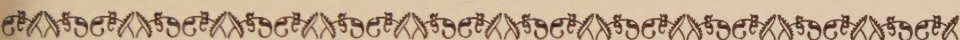
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1955



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OBITUARY

L. G. CARR LAUGHTON

On 30 April 1955 our Society suffered a severe loss by the death of L. G. Carr Laughton, who might be said to have been its founder, as far as that title could be given to any one man. By a strange coincidence the news of his death was received just as Sir Alan Moore, another pre-foundation Member, was engaged in preparing an account of how the Society came into being. This will appear very shortly.

A son of Sir John Laughton naturally grew up with naval history in his blood, and Laughton added both archaeology and etymology to form a vast store of knowledge on almost any subject connected with the work of The Society for Nautical Research, a store which he was always ready to share with others. Something of what the Society owes to him was expressed by Mr Robinson and myself at the Annual General Meeting of 1953, when we had the privilege of proposing that he should be made one of our Honorary Vice-Presidents.

For one whose knowledge was at the same time so extensive and so detailed Laughton wrote surprisingly little on a large scale, but on one subject at least he produced something not likely to be superseded for many years, if ever. That was his study of the decoration of ships in the sailing-ship epoch, published in 1925 under the somewhat inadequate title *Old Ship Figure-heads and Sterns*. He was responsible for three long and important chapters in Laird Clowes's *The Royal Navy*, these being concerned with history rather than archaeology, and he wrote certain naval or nautical sections of the *Victoria County Histories*. Another piece of work which deserves special mention in his Report to the Victory Technical Committee of a search among the Admiralty Records for information which would help in the restoration of the ship to her Trafalgar state. This was printed in *The Mariner's Mirror* in 1924.

Even before the foundation of The Society for Nautical Research Laughton had begun to accumulate material for the 'complete and scholarly Nautical Encyclopaedia or Dictionary' which has been included among the Society's objectives for the last 45 years. Unfortunately his very thoroughness made him something of a perfectionist; he was never satisfied that he had found out enough to justify publication. We must hope that someone will appear to build on the foundation and with the materials which he has left. To do this would be the most fitting way of preserving the memory of one to whom nautical archaeology owes so much.

R. C. ANDERSON

THE SHIP OF THE RENAISSANCE

By R. Morton Nance

PART I

THE chief contribution of the fourteenth century to ship development was the introduction into the Mediterranean of the square-sailed northern cog of the Basque pirates and its imitation there by the Genoese, Venetians and Catalonians. The chief contribution of the fifteenth century was the bringing back to northern and western Europe of a cog improved into the carrack form by contact with the traditional Mediterranean or 'Latin' ship, in which the form of the hull, and the spars and the rigging, remained much as the Romans had left them, though the decorative details and the shape of the sails suggest the Moslem rulers of the Mediterranean during the period of the Dark Ages.

Here it seems advisable to emphasize the points of the Mediterranean or 'Latin' ship in order that these may be the more easily distinguished in the carrack hybrid, which combined with essential features of the northern cog others belonging to this southern ship.

Most notably southern is the hull itself. Whereas the cog, in spite of modifications caused by the adoption of a sternpost rudder, still shows marks of her descent from a vessel with bow and stern alike, the 'Latin' ship has the higher, fuller stern of Roman or earlier vessels.

The ships of the tidal seas of the North, even at the time when Julius Caesar was first struck by the strangeness of the vessels of the Veneti, were straight-keeled; so that their weight, when they stranded, was borne by the whole length of the keel. This straightness may seem to be belied by some conventional representations, especially those on circular seals to the shape of which the keels are adapted; but the weight of evidence is all in favour of straightness.

In the tideless Mediterranean, by contrast, the keel was curved; this shape enabling a vessel to turn quickly, and making it easy, merely by shifting weight to another point, to lift the grounded part from the shoal upon which it might have happened to run, and off which no tide would rise to float it. As Mediterranean ships never sewed, but were either shored up on land, or left afloat in such a way as to avoid strains, such keels were for them quite practical. Here again some of the evidence may seem to be against us; for certain miniaturists have drawn the southern ship with a

concave keel. But this can readily be explained by assuming that they copied similar ships found by them in well-known bestiaries, in which a whale gives this effect to a ship partly hidden by the curve of its back. This convex keel, then, running without a break into the yet more curved stem and sternpost, is not only very plainly shown in Egyptian, Classical and Medieval examples of southern vessels, but is just visible even in the latest of eighteenth-century galleys. In these survivals of southern fashion even the adoption of a single sternpost rudder, replacing the ancient quarter-rudders, had failed to affect the time-honoured curve with which the sternpost rose from the curved keel. The rudder was itself curved like a scimitar to fit it.

In construction there were differences as great between south and north. The fact that southern planking was fitted in the edge-to-edge or 'carvel' style is indicated outwardly by the ends of the beams which commonly project from the sides, as we find them in Egyptian and Roman ships as well as in some modern Oriental vessels; while at intervals thicker planks stand out as 'wales'. These features imply a complete timber frame, set together before the planks were fitted, instead of a shell of overlapped planking formed on a keel and stems, and to which beams and ribs were added only as a finishing touch, as in the northern 'clinker' style. Forward, the classical *acrostole* is often recalled by a back-bent stem-head, though this feature may sometimes be covered by the planking, and in some ships a 'castle', somewhat like those of northern ships, may even be carried above it. Aft, we have not only the general outline and the two rudders to recall the Roman stern, but, as a commonly repeated feature, we find a pair of soaring decorations, with points usually knobbed like a bull's horns. These seem to be the representatives of the timbers which joined to terminate in the classical *aplustre* or *cheniscus*. Usually the cabin accommodation, neatly tucked away inside the upcurved stern, rose in stages (*vanni*) which are visible only from in front; but in some examples it breaks these bounds and takes the form of a 'castle', not derived from the *turris* of the Romans, which was never raised on the stern, but by its Italian name *cassaro* identified with the *kasr* (castle) of the Saracens. In one case we see the stern crowned with a square tilt supported on a frame, a thing as yet unknown in the less sunny north (Fig. 1). On the quarter we are sometimes shown a cargo-port; and there is usually a small round hole for the cable. If the vessel happens to be a stable-ship or *huissier*, she is built with two sternposts, so that a doorway may be made between them for the embarking of horses. Along the side of a warship, 'corridors'—gangways used as fighting-platforms—are raised above the deck.

And yet, perhaps the most singular feature of this southern type of ship

is the arrangement of the partners at the foot of the mast. Instead of being held firm by wedges driven flush with the deck, the mast rises out of a socket made up of several timbers, lashed together like Roman *fascies*, and rising high above the deck-level (Figs. 1, 2). Very suggestive are the names



Fig. 1. Latin ship, showing wales, beam-ends, transom, tilt-frame and 'chimney'. Mosaic, St Mark's Cathedral, Venice.

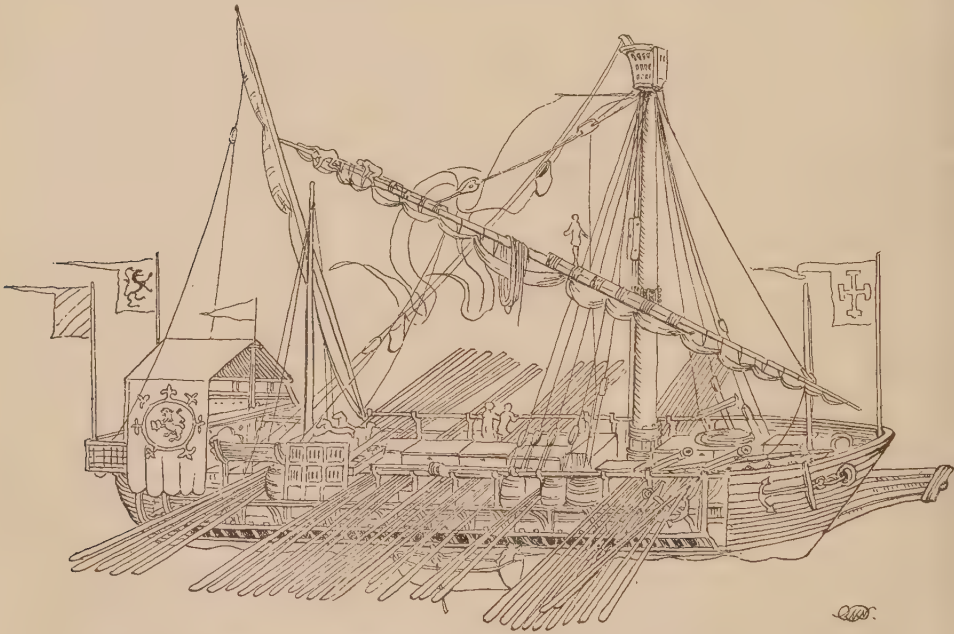


Fig. 2. Pilgrim-galley, Reuwich, 1483, showing 'chimney', crane-line and bags, spar (spigone) extending main-yard, boat with square tuck stern, etc.

given to the partners by the descendants of those who sailed in such ships: the Catalan *fogonadura*, Venetian *fogonatura*, and Provençal *tcheminaye*, all by their literal meaning suggest that the name 'chimney' was originally given to a mast-socket, which has subsequently lost its chimney-like appearance. 'Chimney' at all events makes a most fitting description of these southern-style partners.

The masts (there were usually two of these and might even be three) still show very plainly their classical descent. At the head of each was morticed the great block of hardwood, the *calcet* (*carchesium*), with its two pulleys for the ties. The shrouds were set up by blocks and were without ratlines; a jacob's-ladder, of rope with wooden staves, abaft the mast, gave access to the yard and also to a (more recent) barrel-like top, fixed, reversing old northern custom, *abaft* the masthead and *over* the eyes of the shrouds. Into this top ammunition was hoisted by means of bags on a craneline. In the change over to lateen rig, however, one great alteration from classical usage had taken place. In the classical square-rig a little artemon had raked forward to resemble a bowsprit carrying a spritsail. While retaining this rake, this spar had developed in importance, so that in two-masters it was often bigger than the mainmast and in one-masters it became the mast to survive.

The yard was formed by lashing together the thicker ends of two tapering spars, the foremost of which always took the upper place. Two-spar yards were probably as typical of classical ships. Although the tomb of Naevolia Tyche at Pompeii seems to give us the only very clearly defined example, the Sidon sarcophagus¹ shows a yard in which the two spars are so closely scarfed together as to make what in outline might to the spectator appear to be one, and might, in art, easily be so represented. It seems likely, therefore, that the two-spar yard of the Ancient Egyptians had remained in principle the yard of all later Mediterranean ships. This yard was held to the mast by a parrel and truss (the parrel at times having three or four rows of trucks) and was controlled by two pairs of tackles: at the *carre* (or fore-end) by the *orses*, at the *penne* (or peak) by the *ostes*; with also a *mouton* which drew in the *carre* to the foot of the mast when it was necessary to up-end the yard in 'changing' to the other tack. A single sheet, with a tack added if the sail was cut setteee-fashion, completed the vital gear of this lateen rig. Reefing was unknown to it; the fine-weather sails with their long yards (extended for the biggest sail by a spar lashed to the *penne*) being replaced when winds grew strong by smaller ones on yards of their own. It is just possible that, as in modern lateeners, the smallest storm-sails, used

1 D. A. Mackenzie, *Ancient Civilizations*, p. 26; *M.M.*, Vol. xiv, p. 6.

in running, may have had the ancient square shape. If this were so, we should find an easier explanation for the speed with which certain modifications of northern square-rig followed on its first introduction to the Mediterranean.

Lifts are not shown with early lateen sails; this is true even when lateens are set, in running, with their yards at right angles or almost at right angles to the mast, and with their sheets belayed near its foot. Yet the survival of the ancient lifts in the square storm-sails mentioned above is not impossible.

For light and quickly manoeuvred vessels, and especially for oared craft, whether of war or of commerce, lateen sails remained during the fifteenth and sixteenth centuries, as for small craft they still remain, the characteristic Mediterranean rig. For proof, we have pictures of the fifteenth-century Jerusalem pilgrim-galleys, notably those made by Reuwich for Breydenbach (Fig. 2)¹ and by the artist of the Karlsruhe Pilgrimage MS.², which show us in great detail oared lateeners of considerable tonnage; though, as with the eighteenth-century Venetian trading galeass, this was a local and special survival. In sailing on a wind and in catching light airs lateen rig could beat square rig; and in oared vessels it reduced to a minimum the resistance made to the wind by top-hamper. Yet even in fifteenth-century oared vessels, though perhaps only when they were intended to voyage beyond the Mediterranean, square sails were already used (Fig. 15); and the Scottish galeass of 1549 as described in the *Complaynt of Scotland*,³ like the Neapolitan galeasses of 1588 as represented in the prints of the House of Lords tapestries,⁴ was square-rigged. From its first introduction into the Mediterranean, square-rig seems to have been generally accepted by southern sailors as the best for use on long voyages beyond the Pillars of Hercules. Even in Spain and Portugal, where alone on the Atlantic coasts lateen rig was favoured (presumably as a Moorish heritage), square-rig was similarly preferred, as when Columbus on the outward passage in 1492 re-rigged his lateen *Nina*.

Although square-rig had become thus naturalized in the Mediterranean by 1400, it had not yet come back to the north with the added strength which was so soon to enable it to supersede its ancestral form there. The

1 Bernhard van Breydenbach, *Journey to the Holy Land*, 1485, illustrated by Erhard Reuwich of Utrecht.

2 Dr F. Moll, *Das Schiff in der Bildenden Kunst*. Pl. G 13. MS. St Peter, pap. 32, Landesbibliothek, Karlsruhe.

3 Early English Text Society's edition, pp. 40-2; *N.R.S.*, Vol. XL, pp. 67-84.

4 *The Tapestry Hangings of the House of Lords*, John Pine, 1739. See *Lord Howard of Effingham and the Spanish Armada*, with an introduction by Henry Yates Thompson, printed for the Roxburghe Club, 1919.

old clinker-built cog still survived from the Baltic to the Basque coasts; and perhaps further round the Atlantic shores of Spain and Portugal.¹ Late fourteenth-century Spanish miniatures, and some carvings in the cathedrals of Bayonne and Vittoria, certainly show clinker-built cogs which might belong to any northern country, just as the thirteenth-century seals of Santander and San Sebastian² represent ships which match those on the contemporary seals of Sandwich or Calais. An illumination to a fifteenth-century MS.³ in the Municipal Archives of Valencia, seems even to show a clinker-built cog with a square sail of the cross-seamed southern type (Fig. 3). Spain, with its Basque and Catalan schools of seafaring, should certainly have had an even greater hand than France, with its more widely separated Northern and Provençal schools, in forming and spreading the new hybrid rig and build. But medieval artists were such incorrigible copyists that one can hardly take a single picture as evidence for clinker-work in the Mediterranean.

A typical northern cog of 1418 is represented on the seal of Amsterdam of that date (Fig. 4*a*). The merit of this design was recognized in the usual way by those who copied it for Danzig (1457) and Burgundy (1478),⁴ when it was growing more and more out of date. The second seal of the town of Southampton (*c.* 1400) (Fig. 4*b*) shows a simplified version of a similar cog. Specially noteworthy in each is the doubly protected clinker-work of the hull. The lower planking is guarded by leaf-shaped fender-cleats, worked away to a point forwards, as we can see in many seals and pictures from the thirteenth century onwards. And then, in addition, we find, as a newer fashion, a series of perpendicular fenders or skids crossing the upper planks at intervals from end to end. In the fourteenth-century cog such skids are seen only beneath the castles, where they strengthen the lighter planking used there. Their extension to the whole length of the ship would imply a raising of the bulwarks all along to the level of the after-castle, with no doubt the addition of a higher deck. Such 'skids' must indicate the positions of



Fig. 3. Cog in Spanish illumination.

¹ The Bursledon Ship (see *M.M.*, Vol. xx, p. 158) shows how, by compound planking, clinker-work could be adapted to ships of great size.

² Dr F. Moll, *Das Schiff in der Bildenden Kunst*: Seals of Santander and San Sebastian: Pl. E. vi, 94, 96, 98; Calais Pl. E. vi, b, 184.

³ *Les bones costumes e els bons usatges dela mar*.

⁴ Dr F. Moll, *op. cit.*, Seal of Dantzic, Pl. E. vi, 314; Seal of Burgundy, E. vi, b, 205.

the stanchions to which they are nailed, as the cleats below must indicate beams. Thus, if accurately shown, they should tell us much of the hidden construction.



Fig. 4. (a) Amsterdam seal; (b) Southampton seal; (c) hawse development; (d) aftercastle. (B.M. 15 D. iv.)

Through the fourteenth century one can trace the development of the hawse (Old English *hals*, neck)¹ from a mere notch on the forward bulwarks into a large almost semicircular opening next the stem, which serves not only for the cable but also for the lanyard of the main-stay, which passed several times round the stem by way of the two hawses (Fig. 4c). Some early fifteenth-century ships already have a large round hawse that serves only for cables (Fig. 111c); but in others a semicircular one is still seen

¹ The word evidently at one time named the part of the ship next the stem. It has come to be used of the tack by most Northerners, and our word 'hawser' is a reminder of still another use

The 'castles' are still given wooden battlements, machicolated in various patterns. The forecastle, from being square, has generally settled down into being triangular, although an intermediate five-sided variety, pointed forward, may still sometimes be found (Fig. 7). This castle rests, forward, on what from being a mere bracket has become part of the ship—the knee of the head. The after- or summer-castle, much longer and lower since tillers amidships have become a necessity, is no longer supported by the sternpost, which has been cut short beneath the tiller-hole. The space under the forecastle is reached through a large opening, usually arched. The Amsterdam-seal ship (Fig. 4*a*) shows a sort of porch here. Aft, there is a similar, though smaller, doorway to cabins (Fig. 4*d*), with sometimes windows beside it. The mast has no 'chimney'. Its top-castle surrounds the masthead, resting on trestle-trees and cross-trees. The shrouds have their eyes above these; and are given ratlines. Though they are most often set up invisibly behind the bulwarks, their dead-eyes or hearts are sometimes indicated. Two or more shrouds usually lead much further aft than the rest, acting as backstays. The tie of the yard, a single rope, passes through the hounds (Old English *hun thyrel*, 'masthead-hole') pierced below the trestle-trees.

The yard is a single spar, with a simple parrel consisting of one row of trucks, and has no lifts. This liftlessness of old northern square-rig must be of high antiquity, for Julius Caesar found that cutting through its tie was enough to bring down the yard of a ship of the Veneti. A Roman yard would have remained supported by several standing lifts in spite of severed ties. While, however, the Roman square sail had only a single rope to serve in turn as either tack or sheet (so that even in wearing, the sail must perforce have been brailed up as these changed place), tacks and sheets had been separate ropes in the north from time beyond memory, allowing a ship to tack more readily. Reefing was used to reduce sail, rows of single or double reef-points crossing the whole sail at equal intervals. Bowlines, too, were of long standing, having had for at least 200 years a bowsprit dedicated to their service; with first a one-holed 'comb', and later a comb of several notches in one of which a turn of the bowline was held.

Square-rig, then, as it was brought back to the Mediterranean in the fourteenth century, was in many ways superior to the Roman square-rig which during the Dark Ages had yielded there to the lateen of the Saracens.

To this northern square-rig the first notable addition made by its southern adapters was no doubt that of lifts. These, it would seem, were first suggested by the need of support, at the comparatively slender yard-arms, of a two-spar yard when used for a square sail, rather than by their obvious use in canting the yard; for the names given them in most Romance

languages are diminutives of *aman* ('tie'). At an early stage also the southern adapters seem to have given up reefs (if indeed they ever adopted them) in favour of reducing sail by casting off a bonnet previously laced to the foot of the course. Accustomed as they long had been to the advantage of blocks on *orses* and *ostes*, they naturally replaced the single northern 'yard-ropes' by more powerful brace-pendants and braces, and the bowline 'comb' by blocks, keeping their old double ties with ramhead-block and halyard, and their old multiple parrel, with ribs and several rows of trucks, in place of

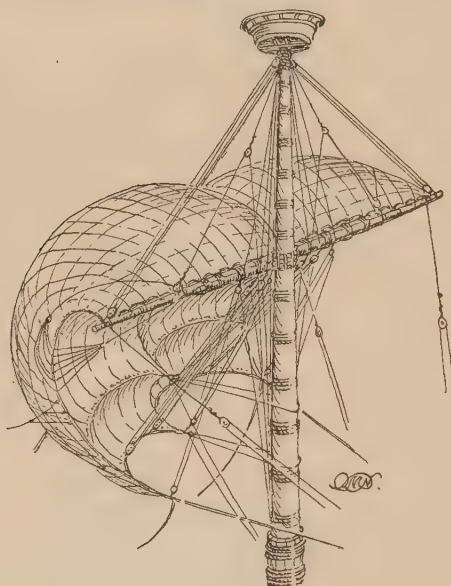


Fig. 5. Carrack's mainsail and gear.



Fig. 6. Danish 'bowges'.

the simple northern variety. They also retained the southern shrouds; and adopting the northern round-top, added a craneline to it. Their sails being of lighter fabric, they made them 'double'; stitching one set of cloths across another, so that the connecting seams produce a reticulated pattern all over the fore-side, and sometimes on both sides; and they gored them so as to produce separate wind-bags on either side of the middle line (Figs. 5, 7 and 15). From pendants at the eyes of the rigging hung tackles which controlled this baggy sail when it was taken in. To the bottom boltrope of the course (or of the bonnet, as the case might be), abaft the sail, were made fast the lower blocks not only of clue-garnets but of two 'foot-garnets' and one 'mid-garnet' (so to name them) which together brought the foot of the sail up towards the yard. Unlike that of the cog, which seems usually to have been furled aloft, the carrack's sail was lowered to furl it, and when furled

usually remained only partly hoisted until sail was made again. As the yard came down, martnets, with branching 'martlets' fastened to 'legs' on each side of the sail just above the bowlines, automatically gathered in the upper corners; and the remaining bagginess was laboriously got in by men astride the yard. Sheets, like tacks, remained single ropes. In sailing on a wind, 'bowges' were used as well as bowlines. These were made fast to a thimble or block at the middle of the foot of course and bonnet, went thence round the mast, through the thimble, and so to the deck; thus flattening in the middle of the sail while the bowline stiffened the weather-leech. A similar device, much as used in modern Norwegian square-sailed boats, is shown as early as 1425 on a painted ceiling at Højby Church, Denmark (Fig. 6),

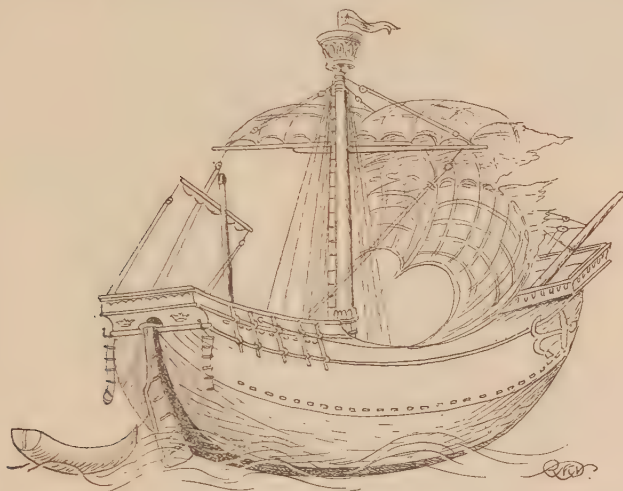


Fig. 7. Gentile da Fabriano, Vatican, *c.* 1430, showing curved keel, 'chimney', beam-ends, boat with square tuck stern.

suggesting that this feature may actually be of northern invention. At Højby it accompanies reefless sails with bonnets; and though reefs remained common in northern sails until *c.* 1450, it thus seems possible that alternative northern course-and-bonnet sails existed before the fifteenth century.

In adapting the Latin hull to square-rig the changes made were eventually more drastic than those caused by adapting square-rig to Latin spars. The quarter-rudders were abolished, and although the curved keel and sternpost were not immediately straightened, as we see very clearly in Gentile da Fabriano's 'Miracle of St Nicholas' at the Vatican, *c.* 1430 (Fig. 7), where a little deadwood only is added to make a better hold for the hinged rudder, by 1450 it was usual to have a straight sternpost, the keel being straightened to meet it and the resulting angle filled in with deadwood. The stern, as in the cog, was brought down so that the 'castle' erected upon it, as a necessary

result, came lower than the forecastle, thus reversing the old southern high-pooed arrangement. In ships of purely southern origin, e.g. that of the Peter Martyr shrine¹ or of the St Mark's mosaic,² we see the aftercastle rising from a transom (Fig. 1). To this was now added, beneath the tiller hole, a lower wing-transom, made necessary by the northern-style rudder and thus producing what became the normal stern of the typical fifteenth century carrack (Figs. 7, 8, 13 and 16).

As fender-cleats or 'skids' are seen in no purely southern ship, but are conspicuous in most fifteenth-century carracks, it seems clear that these were borrowed from the later type of cog in which we have noticed them (Fig. 4 *a, b*). In carracks they are used to fortify the often extreme and sudden tumble-home of the topsides and the lighter planking of the aftership, but they are often absent, especially in smaller straighter-sided ships. Only beneath the forecastle is the northern clinker-work imitated. Here, however, light overlapping planks, cut out of bent timber so as either to follow

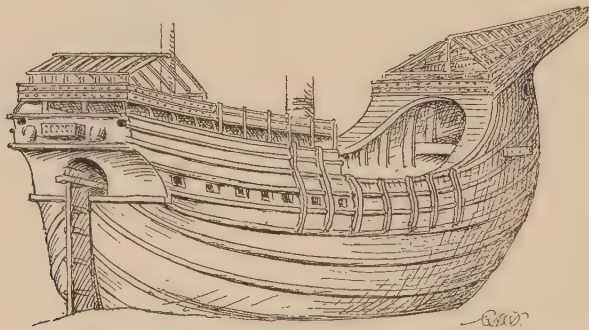


Fig. 8. Carrack, B. Bonfigli, Pinacothek, Perugia.

the profile of the also clinker-worked cowbridge-head or to answer and reverse the curve of the wale, fill the angle between the topmost wale and the bottom of the forecastle (Figs. 8, 9 and 14).

Right across the foreship, inside the arch in the cowbridge-head, we usually see a great beam, sometimes curved at its middle and with ends that project from either side of the ship (Fig. 8). In some way this served to hold the cables: one picture even shows a cable coming inboard from the hawse hole and wound round it in many turns, but the exact method employed is doubtful, as also is the purpose of the projections. These were not usually made to support the shank of the anchor, though that seems an obvious use. This 'bitts' beam may have been an old southern device, but no early southern pictures show it. The hawseholes are in size northern, but in shape

¹ Cast in the Victoria and Albert Museum, South Kensington. See also, *M.M.*, Vol. 1, p. 33 Vol. 11, opposite p. 44.

² In the Chapel of St Isidore, fourteenth century.

southern. Carpaccio¹ alone shows what seem to be the 'bucklers' which closed these at sea, slung on short chains that cross one another (Fig. 9). The fashion of associating the mainstay lanyard with the hawse was not brought south, though the stay was still usually set up by a lanyard about the stem.

There is nothing to suggest breaks in the deck-level of northern cogs, and this feature in fifteenth-century carracks may have been derived from the old southern ship. Their 'beam-ends' and 'corridors' were certainly so

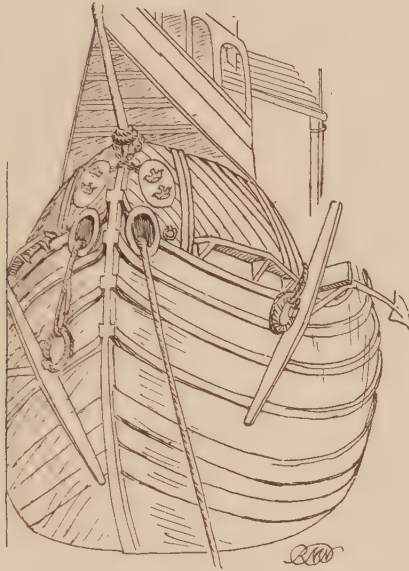


Fig. 9. Bow of carrack, Carpaccio.

derived. The Mataro votive model² with Fig. 19, here, and two Catalan paintings noticed by Mr Van Nieuhuys,³ all show external scuppers, bored through, which project like 'beam-ends'. One painting shows lead pipes (or possibly scupper leathers) prolonging these. The Mataro model also repeats a detail given by Memlinc—the absence of any covering-board to the bulwarks (except in the waist, where sockets for swivel-guns are found in what is literally a 'gun-wale'). Another common carrack detail is that of cabin ports with sliding shutters (Fig. 8).

It is not easy from the data at our disposal to decide when and how the great innovation was first made of adding lesser sails to help the mainsail. There can, however, be small doubt that, as the first of these auxiliary sails would most naturally be added to a cog in waters where lateen two-masters

¹ Vittore Carpaccio, born in Venice *c.* 1460 and died there 1522.

² *M.M.*, Vol. xv, p. 213; Vol. xvii, p. 325.

³ *M.M.*, Vol. xvii, p. 340.

were already in common use and where the aftermost smaller sail of such two-masters invited imitation, this first auxiliary ought to have been southern lateen mizen. Such a belief is borne out by the fact that what may be termed a 'ketch' rig of square mainsail and lateen mizen remained the more common two-masted square-rig of the century (Fig. 10). Yet the other two-masted 'brig' rig, in which a square mainsail is seconded by a little

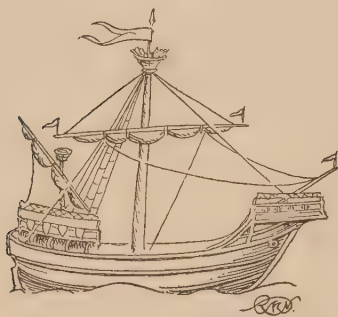


Fig. 10. Mizen-mast as first addition.
King's Lynn, bench-end.

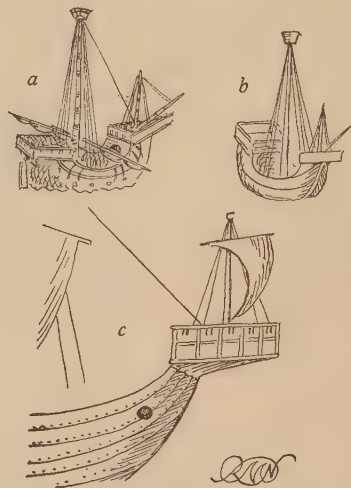


Fig. 11. Foremast as first addition.

square foresail, is also found. The rather crude drawings of Maso Finiguerra¹ and a more convincing Florentine painted coffer of about the same date, 1445, now at Hanover (Fig. 11 *a*), give us this rig in company with southern one-masters. Well-painted pictures illustrating the legend of St Ursula at the Black Sisters' Convent, Bruges, display similar carvel-built vessels in northern Europe, some of them one-masters, and others two-masters of 'brig' rig, *c.* 1430 (Fig. 11 *b*); while a French manuscript² gives us clinker cogs of an older type, nearer 1400, mostly one-masters but with this two-masted rig also represented (Fig. 11 *c*). Such a rig might even have originated in the north as a result of setting a cock-boat's sail on the existing forecastle banner-staff just as boat sails were set on eighteenth-century ensign-staves. Be this as it may, it became a favourite for small northern vessels, such as the carvel-built pink or buss engraved by 'W.A.' and it may, in addition, have been for a brief period the recognized full rig for the largest of northern ships.

1 *M.M.*, Vol. II, pp. 294, 328.

2 *Brit. Mus.* 15 D. IV.

(To be continued)

THE ORIGINS OF H.M.S. *EXCELLENT**By Christopher Lloyd*

THE services rendered to the Navy during the past century by H.M.S. *Excellent* gunnery school (commonly known as Whale Island since its purchase in 1856) make an enquiry into its origins and antecedents a matter of some interest. The more so since the official centenary account of the establishment, published in 1930, deals with the subject somewhat inadequately, and by a mistaken attribution of the authorship of an important pamphlet robs one of the chief progenitors of the scheme of his due credit.

Though it was some years before the shocks administered to British naval prestige by the frigate defeats in the American war of 1812 had any effect, even at that date professional opinion realized that the chief cause of these defeats (apart from the superior size of the American ships) was the low standard of gunnery prevailing in the British navy. So serious was this that commanders-in-chief were told on 15 November 1812, to draw the attention of their captains to the fact that they 'appear to have omitted to exercise their crews at the great guns and in the use of small arms as frequently as the importance of this part of their duty requires'. Since the fourth chapter of the Instructions for the use of officers was evidently being ignored, officers 'should earnestly endeavour to impress upon the minds of the men that the successful issue of the battle will greatly depend on the cool, steady and regular manner in which the guns shall be loosed, pointed and fired'.¹

But the trouble went deeper than mere neglect of duty. As one of the originators of the new gunnery school complained, 'It will perhaps hardly be credited hereafter that there was at that time no regular system established by authority in the British navy, but that each ship had its own particular plan, and method, varying, of course, according to the experience and degree of information possessed by the Captain, as well as to the degree of importance which he attached to the subject. I need not detail the fatal negligence which too often prevailed, and which became only known in its full extent by its unfortunate results.'² Any technical question outside routine matters had to be referred to the shore-based Marine Artillery, which itself had recently come into existence to palliate these defects. In the last years of the Napoleonic wars it had become exceptional for a captain like Philip

¹ Secretary's letter printed in *Keith Papers*, vol. III, Navy Records Society.

² W. L. Bowles, *Remarks on the Conduct of Naval Administration*, 1830.

Broke of the *Shannon* to improve upon the time-honoured drill by offering prizes for target practice. He reaped his reward in his action with the *Chesapeake* because, as Sir John Pechell wrote soon afterwards, 'the *Shannon*'s men were better trained, and understood gunnery better, than any men I ever saw'.¹ Broke's methods became the foundation of those adopted by Pechell in the *San Domingo* and *Sybille*, ships which earned a high reputation for their gunnery during the next few years; and when Broke became a member of the Board in 1830 it was to Broke's example that he appealed in founding H.M.S. *Excellent*.

It so happened that during the year 1812 Col. Sir Howard Douglas (son of the Sir Charles Douglas who, as Rodney's flag captain, was primarily responsible for 'breaking the line' at the battle of the Saintes) saw with his own eyes the remarkable inefficiency of naval gunnery. At that time he was Wellington's commissioner at Corunna responsible for liaison with the guerilla forces in northern Spain. In this capacity he appealed to the Admiralty to ask Lord Keith (commanding the Channel Fleet) to detach a squadron under Sir Home Popham to land arms and create a diversion on the north coast of Spain. When Popham arrived he took Douglas on board as an observer.² Both men were of an scientific bent and the latter was so appalled by the bad gunnery which he witnessed that he decided to devote himself to a study of the subject. In 1817 he completed a treatise on naval gunnery which he presented to the Admiralty and in 1820 obtained permission to publish it. The book was soon translated into French and adopted by many naval establishments abroad at the very time when Paixhans's revolution in gunnery was taking place. The Admiralty, however, took no notice of it whatever.

This official apathy roused the anger of the two naval officers to whom the foundation of H.M.S. *Excellent* is really due. In 1825 and again in 1827 Pechell issued revised editions of a pamphlet, originally issued in 1811, entitled *Observations upon the Defective Equipment of Ships' Guns*. In these later editions he drew attention to Broke's example and Douglas's treatise in which, he said, 'every officer should have by heart'. It was absurd that 'the arming of a ship is the only part of her equipment which has not the superintendence of a naval officer'. It was essential that responsible officers, especially Master Gunners, should attend the school of instruction in Marine Artillery at Portsmouth. Douglas had laid great stress on such 'depots of instruction' organized along the lines adopted by the Royal Artillery. 'Naval gunnery', he had written, 'should have its permanent instructors and store of trained men... These depots would become the

1 Pechell to Sec. of Adm., In Letters, May 1814.

2 For these operations, see *Keith Papers*, *op. cit.*

resorts of zeal and talents; vast numbers of young naval officers would resort thither at their own expense. . . . Naval gunnery would become, as it certainly should, an organized department of the naval service'—a prophecy of the *ethos* of officers from 'Whaley', even if few ever resorted thither 'at their own expense'.

The other officer who, like Pechell, deplored the neglect of Douglas's treatise was Captain William L. Bowles. After some years service in South American waters he became Comptroller-General of the Coast Guard, in which capacity he used his leisure hours to compose a number of pamphlets on naval affairs which he collected in 1847 in collaboration with Captain Hastings, the second captain of the *Excellent*. No copy of the first edition of his 'Remarks on the Conduct of the Naval Administration of Great Britain since 1815', which appeared anonymously in 1830, has been found in the Admiralty Library or elsewhere. It was originally printed as 'By a Flag Officer' and only in the collected editions of 1847 and 1854 did Bowles admit his authorship. It is this pamphlet which the official history of the *Excellent* erroneously attributes to Sir Charles Penrose, who was dead before it appeared. The result of publishing it anonymously has been that Bowles has never received any credit for being a progenitor of what has since become the most important establishment in the naval service.

The vital part played by the pamphlet is explained in a letter from Pechell (now a member of the Board) to Douglas in 1830: 'The old Flag Officer has done what even you could not effect, though not to the extent that either of us could wish; but within these few days an order has been given to establish a gunnery school on board the *Excellent* at Portsmouth.'¹ This order was the result of the Board Minute of 19 June 1830, appointing Commander George Smith 'to reside on board the *Excellent* in ordinary, and to be charged with and employed exclusively in superintending an arrangement their Lordships have decided upon for the practice of Sea Gunnery', instruction to be carried out by Major Park of the Marine Artillery assisted by two subalterns and forty gunners.² The next year Pechell asked Douglas to assist 'in drawing up a prospectus for our future sea-gunners'.

Before explaining the part played by Smith in these proceedings it is as well to note how Bowles (like Pechell) depended upon Broke's example and Douglas's treatise. He complains of 'our neglect of artillery practice and disregard of the recommendations of various officers, especially Sir Howard Douglas, on this subject'. He therefore quotes for wider circulation much of what Douglas had said, and in his later editions pays tribute to the fact that Sir Thomas Hardy, who was one of the Lords of the Admiralty with

¹ S. W. Fullom, *Life of Douglas*, 1863, p. 306.

² Printed in *H.M.S. Excellent*, p. 17.

Pechell in 1830, established a school for naval artillery 'on the exact plan proposed by Sir Howard Douglas'. By 1847 he could speak of the experiment as 'in the highest degree satisfactory', because the success of the bombardment of Acre in 1840 had been rightly attributed to instruction received on board the *Excellent*.

The first captain of the ship was Cdr. George Smith who, in October 1829, presented a memorandum to the Admiralty entitled 'A Prospect of a plan for the improvement of Naval Gunnery, without any additional expense'.¹ He suggested a school for all gunnery officers and men, instead of 'merely having a ship in ordinary with a gun on board for the purpose of exercising the gunners'. He demanded uniformity of drill throughout the service and frequent practice at targets 'placed in the direction of the Collegians' fire'—surely a curious way of learning to hit the target.

A school along these lines was established on board the *Excellent* on a temporary basis in 1830. Smith has left an account² of how this ship was chosen. When he was asked to choose a spot in Portsmouth harbour from which a ship could safely fire, 'the *Excellent* happened to be moored precisely on the spot I had pointed out and she was selected for the purpose'. She was Collingwood's ship at the battle of Cape St Vincent, built in 1787 and broken up in 1834, when she was replaced by the second *Excellent*, *H.M.S. Boyne*. She in turn was replaced by the third *Excellent*, *H.M.S. Queen Charlotte* in 1859, by which date Whale Island had been purchased.

In 1832 the school was reorganized on a permanent basis under Captain Sir Tom Hastings, affectionately known as 'Old Sting', who was a friend and collaborator with Bowles. His efforts, however, did not find favour with the more conservative-minded members of the Board, who liked to see everything done as it had been done in the 'Great War' in which they had made their reputations and who had no use for new-fangled ideas such as target practice, rockets, shells, steamships and the like. In his memoirs of life in the Admiralty Sir John Briggs tells how, when in 1834 he presented Admiral Sir Charles Rowley with the 'gunnery examination papers of a lieutenant' he said: "Do you know, it is very strange, but I don't understand all this. Pray, sir, what is the meaning of the word 'impact'?" I replied, "I rather think it means the force of a blow." He then said to Sir John Beresford (another member of the Board) "What in the name of good fortune is meant by 'initial velocity'?" Sir John replied, "I'll be hanged if I know, but I suppose it is some of Tom Hastings' scientific bosh; but I'll tell you what I think we had better do—we'll just go at once to Lord de Grey and get the

¹ Printed in *H.M.S. Excellent*, p. 17.

² *Ibid.* p. 11.

Excellent paid off." However, the latter replied, "I am afraid, my dear Beresford, I cannot sanction it, for you have no idea how damned scientific that House of Commons has become."¹

The remoter consequences of the establishment of a naval gunnery school do not concern us here. Among the more immediate results were the disbandment of the Marine Artillery and the later editions of Inman's Nautical Tables. Professor Inman, who played a part in almost every naval innovation of that generation, was responsible for the mathematical tables added to the second edition of Douglas's treatise, and he himself had published a text-book on gunnery in 1828 and (it is said) had made certain technical suggestions which were adopted by Broke in the *Shannon*. He had been professor of mathematics at the Royal Naval College, Portsmouth, since its reorganization from the old Naval Academy in 1808. He had served with Flinders in the *Investigator* and had made his name by the publication of his Nautical Tables for the use of navigators in 1821. Thus all subsequent generations of naval officers have to thank a professor—Inman—and a soldier—Douglas—for the severe and familiar disciplines of the nautical tables and the Whale Island standard of efficiency.

1 J. H. Briggs, *Naval Administration*, 1897, p. 47.

BITTACLES AND BINNACLES

*By Lieutenant-Commander D. W. Waters,
R.N., F.R.Hist.S.*

IN his interesting article 'The Binnacle' Commander May wrote: 'The word *binnacle* appeared at the very beginning of the seventeenth century, and for about 150 years was used concurrently with the earlier form *bittacle*, which it finally replaced.'¹ A little further on he wrote 'Binnacle and Bittacle have been spelt in a variety of ways. The following are those spellings which I have been able to trace, with the earliest and latest known dates of their use. . . .'

In this list *Betackle* is the earliest form (1410), a word that also ends the list (1846) in the form of *Bitticle*. Indeed the last three entries are variants of *Betackle*, for the two words preceding *Bitticle* are *Beticle* (1805) and *Bitacle* (1784-1805). If it is realized that *Betackle* was a Middle English (twelfth to fifteenth century) word and that *Beticle*, *Bitacle* and *Bitticle* were modern (nineteenth century) words written before the *Oxford English Dictionary* had been completed, that is to say before there was a universally recognized authority for the standardized spelling of English, it will be conceded, the present writer suggests, that the word *Betackle* was in current use for four and a half centuries. That is to say, *Bittacle* (to use a variant of *Betackle* current between 1608 and 1845 and consistently used by Commander May in his article) was used by seamen, their idiosyncrasies of spelling notwithstanding, between the beginning of the fifteenth century (and perhaps earlier) and the middle of the nineteenth century. It was then supplanted by the word *Binnacle*. This word was first introduced in the form of *Binacle* (1701), a version that remained current until 1818. *Binnacle* is first noticed in 1733, but apparently first defined by Croker in 1764. Before that date only the word *Bittacle* (and its variants in spelling) was defined. This point is important and was not observed by Commander May in his translations of foreign words equivalent to *bittacle*, and in his renderings of English references to *bittacles* in the seventeenth and eighteenth centuries. In citing English definitions of *bittacle* before 1764, and in translating foreign expressions for the word written before 1764 the word *bittacle*, it is submitted, and not *binnacle* should be used; for authority

¹ W. C. May, 'The Binnacle', *The Mariner's Mirror* (1954), Vol. XL, p. 21.

² *Ibid.* p. 25.

writing before 1700 there can be no question but that *bittacle* is the correct rendering on all occasions, for it should be noted that the word *binnacle* (in the form of *binacle*) did not appear until the beginning of the eighteenth century, not seventeenth century as stated by Commander May;¹ furthermore, *binnacle* is a word peculiar to the English-speaking seamen.

Skeat's *Concise Etymological Dictionary* (1951) defines 'Binnacle' as 'a box for a ship's compass. (Port.-L.)'. And then adds: 'A singular corruption of the older word *bittacle*, by confusion with *bin*, a chest.' The same authority elsewhere explains that the word *bin* is from the 'Middle English [twelfth-fifteenth century English] *binne*. A.S. *binn*, a manger, Lu. ii. 7.+Du. *ben*, G. *benne*, a sort of basket, Perhaps of Celtic origin; cf. Gaulish Lat. *benna*, body of a cart; W. *ben*, a cart.'

So the word *binacle* (the first version of *binnacle*), could mean legitimately 'a chest for a ship's compass' as well as 'a box for a ship's compass'. And what was an eighteenth-century *binnacle* like? Croker (1764) appears to be our earliest printed English authority and he described it as being then 'a wooden case. . . containing three divisions', and stated that it stood 'immediately before the helm on deck'.²

Blanckley, writing in 1750, applies substantially the same words to the *Bittacle*, though he calls it 'a sort of Locker'. The illustrations of Blanckley and of Croker leave no doubt they were defining the same bulky piece of sea furniture, nor that it was essentially chest-like in appearance.

Steel, in 1805, calls the 'Binacle (Formerly bitacle)' quite unequivocally 'A wooden case or chest'.³ Yet fifty years later, when the word *bittacle* has finally disappeared from the seaman's vocabulary, *binnacle* is applied without compunction to describe 'a solid wood or tubular metal pillar' on which the standard compass was supported.⁴ So in rather less than 150 years the 'binacle', like a 'bin' or 'locker' for sheltering the steering compass, had become the *binnacle*, and was then like a pillar for supporting the standard, and steering, compass. In the last hundred years the word *binnacle*, despite the diversity of shapes and locations of modern *binnacles*, has remained unchanged.

REFLEXIONS UPON THE ORIGIN OF *BINNACLE*

How did the word *binnacle* come into use? Was a *binnacle* always as described by the standard authorities? If the definitions of the authorities cited by Commander May are studied a discrepancy will be observed in almost all the later ones. Since we are discussing the English word *binnacle* we must consider foreign and English authorities separately. Fournier's

1 *Ibid.* p. 21.

2 *Ibid.* p. 25.

3 *Ibid.* p. 25.

4 *Ibid.* p. 31.

work (1643) is at present inaccessible to the writer, therefore we must pass him by. But the next earliest French authority quoted by Commander May Guillelt (1669), wrote: 'Habitacle... en façon d'Armoire, devant le poste du Timonnier', and he also wrote, 'Les grands Vaisseaux ont deux Habitacles, un pour le Pilote, l'autre pour le Timonnier.' Ozanam (1691) Aubin (1702) and Saverien (1758) make similar statements.¹

When they describe the *habitacle* they are all careful to state that they are describing the *habitacle... devant le poste du Timonnier*, which in English could be termed the 'steering bittacle'. Not one of these French authorities describes the *habitacle... pour le Pilote* (Guillelt, 1669) which in English could be termed the conning bittacle. Aubin (1702) gives the dimension of a 'steering' bittacle as width one sixth of the vessel's beam, height five sixths of its width. All make it clear that the 'steering' bittacle housed one or more compasses, a lamp, the watch glass, and a running glass, and was correspondingly capacious. None describes the 'conning' bittacle.

The earliest English authorities to describe the bittacle, Mainwaring (1620-3, the date of his MS.), Smith (1627), Boteler (c. 1640, the date of his MS.) are also definitely describing the 'steering' bittacle and none of them allude to a second bittacle being in the ship. However, Harris (1696) alluded to 'the upper or lower beetackle', and thereby clearly conveyed that at least two bittacles were carried in the type of vessel which he had in mind.² Harris (1704) and Blanckley (1750), however, describe only the 'steering' bittacle. Neither authority is mentioned by Commander May as being amongst those who refer to more than one bittacle being in a ship. Of the English authorities cited the first to be categorical about the existence of more than one bittacle in an English ship thus appears to be Croker (1764). He describes the 'Binnacle... before the helm on deck', i.e. the 'steering' binnacle (previously 'steering' bittacle) and yet writes: 'There are always two on the quarter-deck of a ship of war, one being for the helmsman, and the other for the officer who conns or directs him.' Now both binnacles cannot have been 'before the helm', indeed one—the one described—was clearly the 'steering' binnacle, therefore the second binnacle (not described) must have been the 'conning' binnacle. Falconer (1769) repeats that there are 'always two binacles' in a warship, but he modifies Croker's categorical statement about their position. Falconer states they are 'on the deck of a ship of war', not necessarily both on the quarter-deck, and he is further careful to add 'one being *designed* [*in italics*] for the man who steers, and the other for the person who superintends the steerage, whose office is called *conning* or *cunning*'. In other

¹ W. C. May, 'The Binnacle', *The Mariner's Mirror* (1954), Vol. xi, p. 24.

² *Ibid.* p. 28.

words, one binnacle was *designed* as a 'steering' *binnacle*, the other was *designed* as a 'conning' *binnacle*. In his description of a *binnacle* Falconer speaks only of the characteristic features of a 'steering' *binnacle*, of 'The Binacle . . . before the helm on the quarter-deck', a sentence which we are assured by Commander May was left practically unchanged by Burney in his revised (1815) edition of *Falconer's Dictionary*.

Steel, writing in 1805, corroborates Falconer's statements, but shows in a schedule of equipment for various classes of ships that at that time two binnacles each were carried in all warships *from first-rates to sloops* (my italics) and in East and West India ships and in packets. One only being supplied to each bomb-vessel, brigantine, brig-cutter or cutter.¹ In other words, 'conning' *binnacles* were used in only the large vessels.

As a seaman I take it that in the seventeenth century (to go back no farther), in the eighteenth and in the early nineteenth centuries, the officer of the watch conned the vessel from a position where he could command an all-round view, and watch the weather leeches when the ship was on a wind, and that to do this he required a suitably positioned and protected compass.

In a small vessel he could conn perfectly satisfactorily with an occasional glance at the compass in the 'steering' *binnacle* for it would be right at hand. In a larger vessel, however, where distance and often a difference in deck levels made the steering compass unsuitable as a conning compass, he would require an additional compass, preferably on the weatherside of the deck whence he conned the ship, in a suitable *binnacle*, i.e. in a 'conning' *binnacle*.

The ordinary corn bin today is often shaped like a cube which has been sliced across the upper transverse centre-line and diagonally down through to the front horizontal centre-line and had the triangular section thus formed dispensed with. The sloping front surface thus exposed forms the lid. This, on being raised, exposes the whole of the interior to the view of any one standing in front of the bin.

Such, I suggest, was the shape of the 'upper' or 'conning' *binnacle*. A *binnacle* like this would be small—no bigger than was necessary to house a compass and lamp—and, I suggest, after if not before 1779, when the number of *binnacles* normally allowed 1st, 2nd and 3rd rates was reduced to two, portable. Just such a 'conning' *binnacle*, in fact, as the portable *binnacle* preserved in the National Maritime Museum, Greenwich, complete with lamp, and a compass mounted in gimbals in a square box. This *binnacle* is of wood and, to judge from the only photograph of it that the writer can consult at present, is about a foot in breadth and eighteen inches in length. The front is about eight inches in height, the back fifteen. The square

1 *Ibid.* p. 27.

compass box slides like a drawer into the front of the *binnacle*, the sides of which slope up towards the back. Only the rear third of the top of the *binnacle* is covered in. In the space beneath this cover and between the back of the compass box and the back of the *binnacle* is housed the lantern for illuminating the compass. Thus facing the *binnacle* one looks down into the interior and sees the compass hanging in the gimbals mounted in the square wooden compass box, and the lamp behind this.

It is possible that searchers for a 'conning' *binnacle* of the size and shape of a 'steering' *binnacle* have overlooked in illustrations of eighteenth-century (and possibly earlier) ships with a 'conning' *binnacle* of the size and shape described above—if, indeed, such portable accessories were shown.

In 1945 the writer presented to the National Maritime Museum, Greenwich, an engraving of a Dutch ship of c. 1690 which gave in meticulous detail the sails, masting, rigging, construction, etc., and numerous accessories, and a full key in English. It is probable that the 'steering' *bittacle* was shown, and it is possible that a 'conning' *bittacle* is among the accessories illustrated but after the lapse of nine years it is unwise to be dogmatic on these matters.

To call a 'conning' *bittacle* of the sort described above a 'conning' *binnacle* would not be inconsistent with its appearance, which was 'chest-like', or bin-like, by the eighteenth century. Indeed, Captain Smith in 1627 it will be recalled, called the '*Bittacle*' a 'square box'.¹ On this thesis the transformation from 'conning' *bittacle* to 'conning' *binnacle* does not represent, as Skeat avers, 'a singular corruption' but a natural one. Nor does it demand too much of the imagination to visualize the rectangular 'steering' *binnacle* described and illustrated by eighteenth-century authorities as 'chest'. Consequently, it is possible on this analogy to account also for the word *binnacle* being applied to the 'steering' *bittacle* in the eighteenth century. This change in nomenclature may also be linked with the introduction of the steering-wheel which occurred at this time. Did the 'steering' *bittacle* become, as a result, more bin-like than hitherto? Certainly in the last century, as already pointed out, the *binnacle* has experienced a drastic metamorphosis with changes in ship design.

There are reasons for associating the introduction of *binnacle* at the beginning of the eighteenth century with changes in ship design and navigational practice that had occurred in the previous century. That century saw the art of navigation established on a mathematical basis—before it was more of an empirical art. Suffice it to say that improvements in hydrography in instruments for celestial observations, compass correction and bearings in instruments and tables for mathematical calculations, and in the lo-

¹ *Ibid.* p. 23.

and line transformed the practice of navigation in many respects and placed it upon a firm scientific basis. Coupled with changes in ship design these developments made a compass for conning, as distinct from the compass for the helmsman to steer by, a navigational desideratum in English ships. With the need for a conning compass came the need for a *bittacle* for the conning compass—a small, compact, bin-like box for its protection from the elements on the upper deck. At least we can be sure, it is submitted, that there were, on the larger ships of the eighteenth- and early nineteenth-century British navy, and in the larger merchant ships of that period, two distinct versions of the *bittacle* or *binnacle*, to use both the terms then current, namely a large ‘steering’ *binnacle* on the deck before the helmsman, and a small ‘conning’ *binnacle* positioned where most convenient for the duty officer of the watch, the Master or Captain.

REFLEXIONS UPON THE ORIGIN OF THE WORD *BITTACLE*, ORIGINALLY (1410) *BETAKLE*

It has already been suggested that ‘conning’ and ‘steering’ *bittacles* were not necessarily both found in English warships (and presumably merchant ships) of the earlier part of the seventeenth century and before that. However, there is good evidence that, in Portuguese and Spanish ships of the seventeenth and sixteenth centuries, and in Italian ships of the fifteenth century, an upper or ‘conning’ *bittacle* must often have been provided.

In 1605 Richard Polter, ‘one of the late principall Maisters of the Navie Royall’, and a prominent member of Trinity House published a manual on good and bad practices current in navigation which he called, *The Pathway to Perfect Sayling*.¹ He particularly criticized carelessness in conning the helmsman. He declared that he had found helmsmen making errors of ‘3 or 4 points of eyther side of the course commanded to be kept’. Accordingly, the ‘care of the Steeridge’, in Polter’s view, was one of the principal points requiring close attention from a navigator. How right he was! Sir Richard Hawkins recounted in his *Observations* (1622) how, in 1595,

The night comming on . . . we sett the watche, having a fayre fresh gale of wind and large. My selfe with the master of the ship, having watched the night past [gave] the care of the steeridge to one of his mates; who . . . being drowsie or with the confidence which he had of him at the helme, had not that watchfull care which was required; he at the helme steered west, and west by south, instead of west-south. . . . As the night wore on the master being in his dead sleepe, was suddenly awaked, and with such a fright that he could not be quiet. . . and so taking his goune, came forth upon the deck, . . . [and coming from the darkness of the ’tween decks] had his sight more forcible, to discerne the difference of the sea, and the shore. . . [and immediately saw the shore hard by]

1 R. Polter, *The Pathway to Perfect Sayling* (1605).

so that forthwith he commanded him at the helme, to put it close a star board, and tacking our ship wee edged off. . . [and sounding they found to their horror] scant three fathome water.

The land being sandy and low [explained Hawkins], those who had had their eyes continually fixed on it, had been dazzled by the reflection of the brilliance of the starres in this fair tropic night off Brazil, [and] so had been hindered from the true discovery thereof, [besides being misled by the ill-steering of the helmsman as to the direction relative to the ship in which the land lay] . . .

In this poynt of steeridge [Hawkins continued], the Spaniards and Portingalls doe exceede all that I have seene, I mean for their care, which is chiefest in navigation. And I wish in this [I remarked—and for the subject under discussion in this article, what follows is significant], and in all their workes of discipline, wee should follow their examples. . . . In every ship of moment upon the halfe decke, or quarter decke, they have [he continued] a chayre or seat; out of which whilst they navigate, the pilot or his adjutants (which are the same officers which in our shippes we terme the master and his mates), never depart, day nor night, from the sight of the compasse; and another have before them, whereby they see what they doe, and are ever witnesses of the good or bad steeridge of all men that take the helme. . . . For a good helme-man may be overcome with imagination [he truly interposed], and so mistake one poynt for another; or the compasse may erre, which by another is discerned. . . . [Yet such care, he declared, had before now] bene neglected [in even] our best shippes.

Mainwaring, writing at the time that Sir Richard Hawkins *Observations* were published confirms indirectly the latter's strictures on the English carelessness in the matter of 'the care of the steeridge'. 'To Conde or Cun. . . implies as much as to direct him at the helm how to steer', he wrote, adding: 'In long courses when we are off at sea there is not much heed taken of it, for then they direct their course upon a point of the compass and so let him at the helm look to steer right on that point; but in chases and narrow channels, where the course lies not directly upon a point of the compass, there the master, mate, or some other standing aloft doth give direction to him at the helm and this we call *conding* or *cunning*.' 'Sometimes', he cautioned, 'he who conds the ship will be speaking to him at the helm at every little yaw; which the seafaring men love not, as being a kind of disgrace to their steerage. . . .'

With the growth in the size of ships in the sixteenth century the steering of them had become a serious problem from the mechanical point of view. The big Spanish and Portuguese ships solved the problem by simply fitting immensely long tillers into the rudder-heads and attaching tackles from the end of the tiller to eye-bolts on either side of the tiller-room—which is the practice to-day in large Chinese junks where 15–20 feet long tillers are not uncommon. In fair weather one man could (and can, as the writer knows from personal experience in handling the helm of large Chinese junks under sail) manage the helm with ease, but in rough weather additional tackles had to be fitted, and as many as twelve to fourteen men would be used to man them in order to keep the play of the rudder and tiller under control. In such ships the 'steering' *bittacle* was, of course, on the tiller-room deck before the tiller, the 'conning' *bittacle* on the quarter or half deck before the officer conning.

In English ships, except those of the largest size, the whipstaff had come into use by Jacobean days, and is described by Mainwaring (1620-3), Captain Smith in his *Accidence* (1626) and in his *Seaman's Grammar* (1627). This device, probably derived from an analogous arrangement in the river barges of the Netherlands, enabled the helmsman to be housed a deck higher than the tiller flat, and so with his head above the upper deck level, whence he could see how the foot of the main course drew, and be himself seen by the pilot, or his mates, or whoever was entrusted with 'the care of the steeridge'.

Mainwaring says the whip was not used in English great ships because of the weight of the rudder, and the impracticability of the one man who only could stand at the whip being able to govern the ship in foul weather.

As the whip-staff worked in a fulcrum fixed in the deck, and the tiller, to the end of which it was loosely connected by the ring, was rigidly fixed to the tiller-post, the sweep of the helm was limited to about 10° either side of the centre-line. Consequently, in heavy weather when greater rudder movement was often necessary, the whip-staff had to be dispensed with and tiller tackles, or yokes, substituted.¹ The 'steering' *bittacle* was kept on the deck before the helmsman. It is implied by Hawkins, Smith, Mainwaring and Boteler that in the first half of the seventeenth century a 'conning' *bittacle* was not provided. Nevertheless, it would seem that in rough weather at least a conning compass would have been advantageous on the quarter or half deck, and that, as a consequence, a 'conning' *bittacle* for its protection would have been no less desirable. In this connection it is to be observed that the steering tackles rigged to the helm in rough weather were called 'yokes' by Mainwaring, who stated that when rigged and in use the men manning them governed the helm 'as directed'.²

There was a long tradition of navigation, as distinct from pilotage, behind the Iberian discipline of conning the helmsman to ensure the care of the steerage. Professor Taylor has given us a rendering of the German monk, Felix Faber's, description of the navigational discipline observed on board an Italian three-masted galley carrying pilgrims to the Holy Land in 1483, of which the relevant extract runs:

They kept a mariner's compass set always against the mast, besides another on the poop by which a lantern burned at night; and when at sea they never took their eyes off the latter; there was always someone watching it, and from time to time he sang out sweetly and melodiously an indication that the voyage was going prosperously, while by this self same song the man at the

1 R. Hawkins, *Observations* (1622), Hakluyt Society ed., *The Hawkins Voyages*, 1878. H. S. Vaughan, *The Mariner's Mirror* (1913) Vol. III, (1914) Vol. IV, 'The whipstaff'.

2 Sir H. Mainwaring MS. of *The Seaman's Dictionary, The Life and Works of Sir Henry Mainwaring* (1620-3), Vol. II. The Navy Records Society, 1921, 'Whip' and 'Yoke'.

helm was directed how to steer. Nor did the helmsman move the rudder unless by his order who up above, was watching the compass; for it was he who discerned whether the ship was proceeding in a straight line, on a curve or sideways.¹

In the light of the foregoing it is interesting to find A. Chaves (1538), the earliest Spanish authority to describe a *bittacle*, defining it as follows:²

(Literal [Translation])

bitácula es una cámara pequeña,
que va encima de la puente del
castillo de popa, donde va el piloto
y la aguja de marear, y ampolletas

e instrumentos del pilots.

bittacle is a small room,
which goes upon the deck of
the after-castle, where goes the pilot
and the sea-needle [sea-compass] and sand-
glasses
and the pilot's instruments.

Garcia de Palaciós (1587) defined it as:

bitácora es una caxa donde va
la aguja de marear y lantia y
luz que alumbra de noche

bittacle is a box where goes
the sea-needle [sea-compass] and lantern and
light that illuminates [it] at night.

Percival (1623) wrote:

bitácula de nao

the place where the light is
kept in a ship, a place in a ship
where they keepe the compass.

The last two authorities' definitions, it will be noted, are so worded that they could be descriptive of a 'conning' *bittacle* as well as of a 'steering' *bittacle*, whereas Chaves definition covers only a 'conning' *bittacle*. This *bittacle*, according to him, was sufficiently large to protect compass, running and watch-glasses, lamp, pilot's instruments and, last but not least, the pilot himself. We do not know what sort of a vessel Chaves had in mind when he wrote that definition, but we can well believe that protection for the pilot as well as for his navigational instruments may have been desirable on 'la puente del castillo de popa'.

If we turn to Skeat, once again, on the subject of *binnacle*, we read '... the older word *bittacle*... [comes from] Port. *bitacola*, a bittacle (i.e. binnacle); Vieijra. Cf. Span. *bitacora*, F. *habitacle*, the same. The Port. *bitacola* stands for *habitacola*, the first syllable being lost.—L. *habitaculum*, a little dwelling, i.e. "the frame of timber in the steerage of a ship where the compass stands" (Bailey).—L. *habitare*, to dwell, frequent of *habére*, to have.'

There may be weighty etymological reasons for tracing this word to the Portuguese but to the writer it would seem that the Spanish *bitáculu* was

¹ E. G. R. Taylor, *Journal of Institute of Navigation* (1950), Vol. III, p. 280.

² H. C. Woodbridge, 'More on the binnacle', *The Mariner's Mirror* (1954), Vol. x, p. 238.

no less likely source, particularly when we recall that King Henry V converted at least one 'great ship of Spain', the *Seynt Cler de Ispan* into an English one—the *Holy Ghost*—in 1414.¹ Furthermore, as Commander May pointed out, a good case can be made out for *bittacle* being derived from the French *habitacle*. In 1410, when *betakle* appears first to have been recorded, the English crown had possessions in Guienne and Gascony as well as on the French Channel coast, and our wine and woad trade with Bordeaux was probably one of our oldest, as it was certainly one of our most important, shipping ventures. It was being developed in the twelfth century by English shippers whereas the Peninsular trade was, for Englishmen, a new venture in the fourteenth century.²

It is possible that the English *betakle* of 1410 was in appearance like the Spanish *bitácola* of 1536, but in the writer's opinion there are objections to this possibility. On the commercial, naval and navigational evidence available to-day it seems certain that English ships of that time made short sea or coasting voyages only, involving pilotage only, and that the pilot's instruments were confined to compass, lode-stone, sand-glass, rutter, lead and line; that he used neither chart, traverse board nor quadrant. In other words, the pilot had no instruments to house other than a compass and glass. His *betakle* did not also have to house himself and his instruments. Therefore it was probably not 'a small room', but some sort of receptacle for housing securely the compass and a lamp of sorts. If this were so it is not inapposite to reflect upon the fact that *betakle* is made up of *be-tak-le*. Now *be-* is an English prefix from the Anglo-Saxon *be-*, also a prefix, and one Skeat describes as being 'orten causative, as in *be-numb*, to make numb . . . *be-mire*, to cover with mire'.

The syllables *tak-le* are very interesting. Let us first take them together—*takle*. 'Tackle', says Skeat, is 'equipment, gear, tools (Scand.)'. The Middle English was '*Takel*.—Swed. and M. Swed. *tackel*, tackle of a ship; Dan. *takkel*, tackle, whence *takle*, to rig . . . The suffix *-el* denotes the agent; *tack-le* is that which *takes* or holds firmly . . .'

So a *be-takle* could mean 'that which makes a firm hold'—for the compass.

Now let us take *tak* and *le* separately. Once again our authority is Skeat. '*Tack*', he says, is 'a fastening', from the Middle English *takke*, *tak*, 'a fastening . . . Cf. Norman dial. *taque*, a nail . . . Hence a *tack* or rope fastening a sail . . . the verb *to tack*, in sailing, refers to the shifting of the

¹ Mrs W. J. Carpenter Turner, 'The building of the *Holy Ghost* of the Tower, 1414–1416, and her subsequent history', *The Mariner's Mirror* (1954), Vol. XL, p. 270.

² J. A. Williamson, *A Short History of British Expansion*, 'The Old Colonial Period' (1945), p. 16.

tacks in order to alter the ship's course.' From this and from what has already been said above about *be* and *takle*, the syllables *betak* can presumably be taken legitimately to signify 'to make fast' or 'to make secure'.

Now let us see what Skeat has to say about *-le*, the last syllable of *betakle*. 'Lee, a sheltered place, part of a ship away from the wind. (Scand.)' is what he writes, and explains that the Middle English meaning of *lee* was 'shelter'. The Iceland *hle* also means 'lee (of a ship)'; Dan. *loe*, Swed. *lä*+Du. *lij*; A.S. *hleow* *hleow*, a covering, a shelter. . . ' Skeat adds.

It is, therefore, possible to see in *be-tak-le* a Middle English word meaning 'to make a secure shelter from the wind'. On the issue whether this is etymologically consistent with the formation of Middle English words the writer does not profess to be qualified to pass an expert opinion, but it does seem to him to be not inconsistent with the etymological knowledge he has been able to glean from the—admittedly abridged—dictionaries at his disposal.

So the modern English word *binnacle* may be derived from the Latin '*habitaculum*, a little dwelling', through the French *habitacle*, the Portuguese *bitacola* or the Spanish *bitácula*, and from the English fifteenth-century derivative from one or other of the words, *betakle*; or it may be derived from a Middle English word, *betakle*, coined from Anglo-Saxon and Norman words meaning 'a place sheltered from the wind'. This, of course, is another way of saying 'a little dwelling'.

Commander May gave some words used in Italy and Southern France for the *binnacle*. It is suggested that the Venetian word *Camerino* is derived from the Latin *Camera*, a chamber, the word *camerino* representing a diminutive form, i.e. 'a little chamber' or 'small room'. This, of course, brings us back full circle to Chaves '*cámara pequeña*, a small room', a circumstance hardly surprising as both Venice and Spain were Mediterranean sea powers.

The Provençal *custode* bears a striking resemblance to the Latin *custodia* 'a keeping guard'¹ which could convey the idea of a structure associated with the protection of the compass and the watching, or guarding, of the compass.

In conclusion, the writer must mention that, in discussion with a student of Arabic, it was pointed out that the Middle English *Betakle* bears a striking resemblance to the Arabic *betakl* which conveys the significance 'House of Security' or 'House of Knowledge'. The latter expression could be a not inappropriate name for the sort of *bittacle* described by Chaves, namely, a small room on deck housing the pilot and his navigational instruments and hence the source of knowledge of the ship's way through the pathless wastes of the sea.

WILLIAM SABYN OF IPSWICH: AN EARLY TUDOR SEA-OFFICER AND MERCHANT

By John G. Webb, M.A.

ONE of the principal features of the history of the Tudor navy was the adoption of the Great Gun, which not only revolutionized sea-warfare by making 'off-fighting' possible, but also had a profound effect upon the composition and character of naval personnel. Hitherto a warship had been subject to the dual control of a military officer and a master, the former, by virtue of his gentle blood, being in command of the fighting platform to which he had brought his retinue, and the latter continuing his peacetime duties of supervising discipline amongst the mariners and navigating the ship. The new conditions, however, demanded the undivided control of a leader skilled both in fighting and seamanship, and King Henry VIII, who took an immense interest in all things nautical, appears to have been anxious to appoint gentlemen so qualified to be captains of his great ships. But such commanders were difficult to find, for the disdain which soldiers felt for those who made the sea their profession was not readily overcome; nor, for the same reason, was it easy for a shipmaster to leap the social barriers of the age and be admitted into the ranks of leadership. Of considerable significance for the future solution of this problem, however, was the rise of the vigorous and self-reliant merchant class, some of whose members had been brought up to the sea, but yet who, by reason of their prosperity, were regarded as being socially superior to ordinary professional seamen. Such a man was William Hawkins of Plymouth, who took his own ships as far as Brazil, and whose son John became one of the great figures of the succeeding age. Of that class too, and also a competent seaman in his own right, was William Sabyn of Ipswich, who acted as shipmaster and trader in the last years of King Henry VII's reign, but who, when England went to war, was soon recognized as being sufficiently skilful as a fighter to be entrusted with responsible command at sea. He was one of the pioneers in a new tradition of captaincy, and an examination of his career, unspectacular as it was, is thus of value in illustrating an early phase of what has been described as 'the wedding of seamanship and fighting', an important chapter in the story of the naval profession.¹

¹ A detailed study of the antecedents of the modern naval officer is made by Michael Lewis in his *England's Sea-Officers* (London, 1939).

In view of his subsequent career, it would be of particular interest to know something of Sabyn's family background and early years, but there is now insufficient evidence to establish anything beyond the facts that he had at least one sister and that their father's name was John.¹ Many branches of the Sabyn family were living in various parts of England in the late Middle Ages, and William may well have sprung from any of these.² That he received some formal education is evident from the few letters of his which still survive, but although written in a hand superior to that of many of his merchant contemporaries, they reflect a man of action, not a scholar, and are of a character which re-affirms his own admission to Wolsey that he was 'a pore secr[etar]y'.³ No evidence of his activities appears until the early years of the sixteenth century, when he was already established in Ipswich and taking a small part in the non-sweet wine trade. In 1504 he imported 25½ tuns in three shipments, the last of which, consisting of 9 tuns, arrived on 26 December on a vessel of which he himself was master. The following December he imported 26 tuns, and in October 1505 8 tuns.⁴

These few details are all that survive of his early trade, and he is not heard of again until the eve of King Henry VIII's first French war, by which time he had clearly become a man of some substance and capable of giving service to the young monarch. In January 1512 he was paid £40 out of the royal accounts,⁵ but for what reason is not known. The following month he was noted as a recognisance for the re-payment of a certain royal loan,⁶ and in April, when Sir Edward Howard was appointed admiral, his fleet included Sabyn's vessel, which was kept under the command of its owner. Officially described as of 120 tons, the *Sabyn* carried 60 soldiers and about 40 mariners, all of whom the Ipswich captain had impressed from the area around the Suffolk port, and principally from Bawdsey, Alderton and Sutton, and places in the Colne Valley. For his ship he received an allowance of a shilling a ton a month, he himself, in common with his fellow captain

1 *The Visitations of Suffolk, 1561, 1577, 1612*, ed. W. C. Metcalfe (Exeter, 1882), p. 15. In 1516 a certain John Sabyn received a life annuity of 12d. a day for being in arms in the royal service (*Letters and Papers of Henry VIII*, ii (i), no. 2736).

2 A useful map showing the distribution of the various branches of the Sabyn family, 1200-1600, is given in *Sabin(e): The History of an Ancient English Surname*, compiled by W. H. V. Sabine (London and New York, 1953).

3 *Letters and Papers Relating to the War with France, 1512-1513*, ed. A. Spont (Navy Record Society, 1897), p. 144.

4 P.R.O., K.R. Customs, 53/18; Ex. Var. Accts. 84/17, 85/6. In all but one of these early shipments, a certain alien named Evan' Cressangelii shared with Sabyn the cargo-space in the vessels on which he imported his wines.

5 *Letters and Papers of Henry VIII*, ii (ii), p. 1454.

6 *Ibid.* p. 1481.

not of the small and select body of 'King's Spears', receiving wages of eighteen pence a day, together with a coat worth four shillings. His men were paid five shillings a month, a similar allowance being made for their victuals. The officers enjoyed the extra advantage of sharing the ship's allocation of twenty-two dead-shares, each of which was also valued at five shillings a month.¹

Sabyn's part in the first year of this war has remained largely unrecorded, but he no doubt helped to escort Dorset's expedition as far as Brest, and participated in the series of raids which Howard inflicted on the coast of Brittany.² Later in the summer King Henry VIII rode down to Portsmouth and

made a greate banquet to all the capitaines, and euery one sware to another euer to defend, aide, & comfort one another without failyng, and this they promised before the Kyng, whiche committed them to God, and so with greate noyse of minstrelsie, thei toke their shippes, whiche wer xxv in nombre of greate burden, and well furnished of all thynges.³

On 10 August Howard and his company unexpectedly reappeared off Brest, and the two fleets fought the only real action of the whole war, during which the *Regent* and the *Cordelière* grappled in deadly embrace, and both sank with heavy loss of life when the French vessel burst into flames. After further pillaging near Brest, and a successful sweep of the coast of northern France, Howard's fleet returned to England, soon to learn of the miserable end of Dorset's expedition.⁴

During the next few months the shipyards resounded with the noise of the wrights and carpenters repairing the English ships and laying down new ones.⁵ The *Sabyn* appears to have been busy helping to waft the herring fleet, and when her charges and those of two other vessels were calculated, extra payments were allowed 'bycause they were forth at see aborde in the Cambre or the kyng's letter comme'.⁶ That winter Sabyn's ship was one of four appointed to keep the sea from Dover and Calais,⁷ but about Christmas time he discussed the manning of the fleet with Howard. He tried to induce the young admiral to speak to the King about impressing convicts, so that there would be a force of men ready to take part in particularly hazardous enterprises for the price of their liberty.⁸ Apparently the advice went un-

¹ Spont, *op. cit.* pp. xii-xiii, docs. 7 and 54; M. Oppenheim, *A History of the Administration of the Royal Navy, 1509-1660* (1896), pp. 74-6; P.R.O., E 36/2, pp. 25, 38.

² Spont, *op. cit.* pp. xv-xx.

³ Hall's *Chronicle* (London, 1809), p. 534.

⁴ Spont, *op. cit.* pp. xxiv-xxix.

⁵ *Ibid.* p. xxxiii.

⁶ *Ibid.* doc. 40 and notes.

⁷ *Letters and Papers of Henry VIII*, i (i), no. 1413.

⁸ Spont, *op. cit.* doc. 74. The French galleys of Prégent de Bidoux were supplied with convicts from the prison of Angers in December, 1512 (*ibid.* p. 71, n. 1).

heeded, but Sabyn was clearly establishing himself as a worthy and skilful officer, and when Howard sent him on a mission to Wolsey, it was with the recommendation that 'thow he be but a poor man he shal show gret grond off welth *and* honor to my master iff ye wyl heer hym'.¹

Meanwhile, the English fleet was preparing to sail across the Channel once again, but delays were caused by the poor victualling arrangements. Most of the vessels were at Plymouth early in April 1513, but the *Sabyn* was probably one of those still at Southampton, for its owner collected £1000 from John Dawtrey, the customer of that port, on 2 April and delivered it to Sir Thomas Wyndham.² With Howard still lamenting the shortage of victuals, the fleet left England on 10 April and sailed across the French coast, where they found the enemy safely ensconced within the haven of Brest, and showing few signs of initiative. Prégent de Bidoux, an officer of note who had come round from the Mediterranean with his galleon fleet, was at St Malo, separated from his fellow-countrymen.³

It appears that having taken stock of the situation, Howard sent Sabyn home with news for the King, perhaps hoping that the Ipswich man would also be able to stimulate Wolsey into providing some supplies. In a subsequent letter to Henry the admiral referred to the situation, of which 'I am sur Sabien hath informed Your Graas'.⁴ Perhaps it was in this first letter that Howard made his invitation to the King 'to come thither in person, and to have the honour of so high an enterprise'.⁵ The messenger received £200 and when he returned he was put in charge of nine crayers carrying victuals to the fleet, which, in spite of receiving supplies during Sabyn's absence, was again in sore need.

Meanwhile, the position at Brest had been complicated by the arrival of Prégent de Bidoux with his small but effective force. It had cut its way through the English ships, sinking one and badly damaging another, and had anchored in Whitsand Bay, where the water was shallow and well protected. Howard decided to land between the bay and Conquet and take the galleys from the rear, but just as the operation was beginning Sabyn's victuallers were seen, and the men were called off.⁷

That Sabyn was now high in favour with the King is seen from the fact that he carried a royal letter of credence to Howard, and appears to have been entrusted with the duty of advising him on the situation. Upon hearing that an attack on the French galleys was intended, Sabyn tried to dissuade

1 P.R.O., SP 1/229, f. 131. It may be noted that Wolsey was a native of Ipswich and that the Howards had strong connexions with the port and its immediate neighbourhood.

2 Spont, *op. cit.* doc. 65.

4 *Ibid.* p. 128.

6 *Ibid.* p. 128, n. 1.

3 *Ibid.* pp. xxxiv-xxxv.

5 *Ibid.* p. xxxviii.

7 *Ibid.* doc. 76.

him, pointing out the folly of attempting to strike at such a secure position. Indeed, as he afterwards wrote in a letter to Wolsey, he saw little to be gained from staying at Brest where the enemy was very strong, and would gain rather than lose from the delay. Instead he advocated raids upon the French coast and neighbouring islands, which he considered a safer, cheaper and more effective plan of campaign.

But Howard was determined, and encouraged in his impetuosity by Charran, a Spanish captain, he would not listen to the cautious Sabyn, who, despite all his efforts, 'cowde not torne hys mynde'. Lest some doubt should be cast on his own courage, Sabyn wrote a self-confident, explanatory letter to Wolsey some days later, in which he said:

And, Sir, whereas yowre maysterschippe gaff me commandement to scho my pore advyse, I have don yt, and I do yt to the utterest off my power. And whereas yt wyll p[lease] yowre good maysterschyppe that he so be owre hed and governor, [and if] he wyll accept my pore advise, I schall never gyff hym [one] but that schal be to the honer off my soveren lord the Kyng, and I schal be ever the fryste man be londe and be wa[ter] myselfe in the fryste danger in any soche consell [to] gyff, yff I se yt may be don with reson.¹

Distasteful as it had been to the more intrepid spirits, his advice was vindicated by the turn of events. Making his attack on the galleys, Howard was killed and his fellow officers repulsed. Demoralized, short of food and fearful of impending gales, the English fleet, 'bodys withowte a hed' as Sabyn himself put it,² disconsolately returned to Plymouth to receive the sharp rebukes of a disappointed young king.³

Whilst the captains were echoing Sabyn's caution, Thomas Howard, the new admiral, planned to return to Brest to avenge his brother's death. But once more victualling arrangements could not keep pace with the commander's enthusiasm. Owing to the shortage of casks the operation took several weeks,⁴ but although the main part of the fleet remained inactive Sabyn appears to have been under sail again, for when Howard wrote to Wolsey from Plymouth on 15 May, he reported that the Ipswich captain had brought him news of a rebellion at Brest Castle, and how the French commander had put it down.⁵ Soon after, Sabyn was sent with two other ships to the coast of Brittany, where they took thirteen sail laden with salt and brought them back to England, together with news of the French fleet.⁶

But the naval war was coming to an end. Instead, hostilities assumed an almost completely military character, and Henry's forces landed in France

1 *Ibid.* doc. 74.

3 *Ibid.* docs. 77-8.

5 *Ibid.* doc. 81.

2 *Ibid.* p. 143.

4 *Ibid.* doc. 82

6 P.R.O., SP 1/229, f. 178.

in great expectations of success, fulfilled by the capture of Théroutanne and Tournai. Meanwhile, the Scottish king had been awaiting his opportunity and he crossed the Border in strength on 22 August. This move was not unexpected, and the army which the Earl of Surrey commanded to repel the attack was joined by a naval contingent under his son Thomas Howard. William Sabyn was one of the thousand men from the fleet who acquitted themselves well at Flodden Field.¹

The *Sabyn* remained in service again during the winter of 1513–14. When, in spite of a truce, Prigent de Bidoux took his galleys across the Channel and set fire to Brighton,² Surrey landed near Cherbourg and pillaged the area seven miles along the coast and two miles inland, sparing nothing but religious buildings. Sir John Wallop, William Gonson and Sabyn, together with about seven hundred men, went ashore thirty miles to the west, where they wreaked similar havoc, burning with such zeal that the smoke drifted far over the countryside and shrouded the hills, much to their compatriots' satisfaction. Surrey, full of enthusiasm at this retaliatory display, besought the King to write a commendatory letter to the captains, adding, 'I never saw men of better will to *serve*'.³ With this raid the war was virtually at an end.

Having temporarily relinquished command of his own ship to Richard Calthorp, Sabyn was given the *Rose Galley*, in which he helped to escort the King's sister Mary to her new realm.⁴ It is clear that his reputation was rapidly growing, for shortly afterwards he was entrusted with an important mission to the coast of Scotland. Described as 'cheiff capitaine' or 'vice admiral' of a small fleet of royal ships, the *Anne Galant*, in which he himself sailed, the *Henry of Hampton*, *Less Bark*, and *Black Bark*, commanded respectively by John Hansard, Robert Draper and Robert Appleyard, he was directed to go northwards, probably in an endeavour to contact, or give support to Queen Margaret, King Henry VIII's other sister, whose position had become increasingly insecure after the death of her husband, King James IV, at Flodden, and her marriage to the Earl of Angus.⁵ Sabyn paid his company and victualled his ships at Hull early in January 1515, but after being ordered to put to sea as speedily as possible, he was not heard of for several weeks. Eventually Thomas Beverlay, who had been instructed to send news of him, reported a meeting near Dunstanburgh

1 J. D. Mackie, *The Earlier Tudors* (Oxford, 1952), pp. 277–83; *Letters and Papers of Henry VIII*, i (ii), no. 2652.

2 Spont, *op. cit.* p. 185, n. 1.

3 *Ibid.* p. xlv.

4 B.M., Cotton MS. Caligula D viii, 246.

5 *Letters and Papers of Henry VIII*, i (ii), nos. 2686, 3513.

6 *Ibid.* ii (i), nos. 62–3; P.R.O., Ex. Var. Accts. 61/23.

Sabyn, who was waiting for two of his ships before making for the Scottish coast, discussed his mission with Beverlay, who afterwards reported:

I understand by hym he thinketh a gret entreprise to go theder with iiij shippes wherin er bot xxij *ti* score men as he shewith which is a small nombre to abide the damages of the Scottes keping his company in savegard and the kinges shippes as the kinges grace writeth to hym to do. . . bot he saith he shall do his best without feryng.

It is clear that this enterprise was to be conducted with as little risk and cost as possible, and Sabyn's cautious temperament may have been largely responsible for his selection as its leader. Unfortunately, no further facts appear to have survived. Beverlay was appointed to remain in the Bamburgh area to receive news from the Ipswich commander, and to send him any fresh instructions that might arrive, but he had doubts whether this would be possible, 'for here dar none awenture to go into Scotland'.¹ It was probably this expedition which was later set down as having cost £423. 7s. 1d.²

In November 1517, Sabyn was again acting on the King's behalf, for there survives a complaint that he was unable to secure redress from the French, with whom he had been discussing the restitution of the *Black Bark*, a royal ship which had apparently been taken. As the commissioners had denied his possession of sufficient authority to undertake this business, Henry immediately wrote on behalf of his 'welbiloved servant', and confirmed his power to act in the matter.³

At this meeting Sabyn also negotiated 'for redresse of certain Iniuries doon unto hym by the Frensshe kinges subgiettes', although apparently with little success. The nature of his grievances is not recorded, but they probably arose from the trading ventures which he had resumed at the end of the war. The few Ipswich customs and butlerage accounts surviving from this period show him exporting small quantities of cloths 'without grain', and bringing wine, salt, woad, and other goods in return.⁴

It was not long, however, before England and France were once again at war. In Scotland power passed back to the pro-French Duke of Albany, who had recently returned from the continent and found the support of Queen Margaret, hitherto his avowed enemy. Her husband, the Earl of Angus, fled to England, where King Henry viewed the position with concern. He attempted unsuccessfully to browbeat the Estates into the duke's dismissal, and went as far as seizing the goods of all Scots in his realm, forcing the dispossessed to march to the Border wearing a distinctive white

1 B.M., Cotton MS. Caligula B 1, 17, 25.

2 *Letters and Papers of Henry VIII*, ii (ii), no. 2949.

3 B.M., Cotton MS. Caligula E 111, 27; *ibid.* Titus B 1, 63.

4 P.R.O., K.R. Customs, 53/22; Ex. Var. Accts. 86/8, 14, 19.

cross upon their clothes.¹ Sabyn was given a small fleet, and once more he turned his mind from the peaceful pursuit of commerce to the destructive design of harrying the stubborn Scots.

On Mayday 1522, he and his fellow captains arrived at the Bass Rock, Firth of Forth, at three o'clock in the morning. On the morrow they went to burn a village near Tantallon Castle, but having been espied, they were prevented from landing by a large body of foot and horse soldiers, some of whom they killed. Two days later, when they tried to take on fresh supplies of water, they were again fired on, but managed to complete the operation successfully. That afternoon they attempted to burn some fishing boats moored at a pier, but they encountered strong opposition from the local inhabitants, with whom they fought for three hours, during which two Englishmen were killed by arrows. 'Then', said Sabyn in a letter to Surrey a few days later, 'I called all the captayns to me *and we toke owr cownssell. how we schould geff asawte unto the town of lethe and ytt was a ley schoyr and fare flattes butt ytt we ventryd as far as watter wold sarff us and schott owr ordenans som I thynke In to the town.*' Next he ordered his ships to cast about and brought them one by one as near as possible to Kinghorn, and each in succession fired as it passed. He afterwards reported:

We gave them a pelle to ryng Allen to hys mas that soche annother pelle was natt ronge ther other xx yer for in good fayth the tyllyd howsses hors *and cartt mythe be dreyven thorow them.* The dweke of albany yff he ware in edenborow or xx mylles off he mythe her owre pell to mattens *and mes.*

As they sailed along the north side of the Forth they fired into Dysart. Sabyn described to Surrey how

I descryed a roder att anker *and soo I plyd to hym butt the ebbe wold sarffe me an lenger and soo ankeryd and soo schott iij pesses of ourdnans bott my compyny cowde nott here them I was soo fare a for them.* Than thys chyppe parsayved that I wold thenns butt he att the flode halleyed hym betwext the rokes *and the contre com down a grett number to hys rescu bott for all that I plyd to hym and tarrying for my company that I wolde a brynt hym or elles stroyd hym with ordenans that thay schould never hade good of hym.* And than I skryd a sayell a seabord comyng iijj owres large a for eny of my company coude skry hym *and gaff hym chas and pott hym onder my ley and my bott rede to a borded hym and tomys harper wan the schyp tarryd for me and borded hym and soo I sent my bott to se the schypp schould natt be spoyld.*

It was a vessel of Copenhagen, laden with 24 lasts of rye, half of which belonged to a widow who was said to be 'onfryndly to ynglechmen'. There were also 24 barrels of herrings. The French had seized the ship and were sailing it to Leith. Sabyn decided to despatch it to Newcastle with a letter to the customer there, asking him to sell the rye as quickly as possible as it was wet. The vessel was then to be repaired, ballasted with coal, and taken

¹ Agnes Mure Mackenzie, *The Scotland of Queen Mary and the Religious Wars, 1513-1638* (London, 1936), pp. 16-18.

by his servant to Ipswich. In concluding his long report to Surrey, Sabyn said that he had had news of few Scottish ships in the area. With the touch of the expert ravager that he now was, he sadly added:

Yff I hade hade ij good chypes *with* me to a londyd vC men *and* to kepp owr chypes I wolde a brynt di a dossen good vellages or I hade com hom for thay stond very well *and* ner the watter syd.¹

Later that month, when Sir William Fitzwilliam wrote to Wolsey, he reported that three of Sabyn's captains had arrived back from the north, and that he was enclosing a letter about the expedition, remarking that he was sorry that they had had to complain about the behaviour of one of the King's servants. These censures apparently related to Sabyn. The letter is now mutilated, but its contents are reasonably clear. It tells how, on the voyage home, the fleet encountered a Spanish ship, a hulk and the *Galleon of Dieppe*, none of which was said to be above a hundred tons. The French vessel showed a banner of truce and Sabyn allowed it to go on its way, but afterwards, apparently thinking better of it, he decided to give chase, only to find that it was well out of range. He therefore diverted his attention to the Spaniard, which he ran so closely that 'his men layed holde upon her takling'. Although the remaining ships of his fleet could not give help as they were confined to harbour, the captains soon had men ready in boats to give support should he succeed in boarding. But apparently these measures were in vain. The next day they met up with their commander, and the morning after were joined by Sir John Tremayle and Harper, whom Sabyn had previously sent on an undefined mission 'for the Scottish Ordnance'. When they arrived off Orford Ness they saw a certain Mylner of Erith shooting at three French vessels. One of these proved to be a captured English merchantman, laden with wheat, and manned by ten mariners from the *Bark of Boulogne*. When Sabyn's fleet appeared, the French took off their fellow countrymen and fled.² It is impossible to assess the commander's behaviour from such imperfect evidence, and without his own version of these incidents; but the expedition was apparently the apogee of his naval career, for although he does not fade entirely from the scene there is no evidence that he was ever again given such a responsible command.

His activities during the remainder of this largely uneventful and inglorious war have left few traces. Soon after returning from Scotland, he accompanied the admiral and other captains into Dartmouth to find places to lay up the royal ships that winter.³ He probably took part in the sack of Morlaix in July 1522. If so, he must, ironically enough, have helped in the

¹ P.R.O., SP 1/49, pp. 13-14.

² B.M., Cotton MS. Otho E ix, 30.

³ *Letters and Papers of Henry VIII*, iii (ii), no. 2355.

seizure and destruction of merchandise which his fellow English traders had sent to Brittany under cover of a safe-conduct. As Polydore Vergil commented: 'Thomas Howard led back home a fleet laden partly with the spoils of the enemy and partly with the spoils of his own countrymen.'¹ In 1529 Sabyn was included in a naval list as captain of the *Less Bark*, but there is nothing to suggest that he saw any further service as a sea-officer.²

Instead, he was able to help King Henry VIII in another, more formal way, and so become part of the colourful pageant of the Tudor court. Since 1518 he had been one of the small and fortunate company of royal serjeants-at-arms, selected men who held office for life and received a fee of a shilling a day.³ Their duties appear to have been principally concerned with the protection of the sovereign's person, and they had the power of arrest, which, when exercised, was rewarded in accordance with a scale of fees based on the social degree of the malefactor.⁴ The Eltham Ordinances of 1526, which sought to bring some order to the confused condition of the royal household, give a few further details of the position of the serjeants-at-arms at court; but Sabyn himself, also described as 'yoman of the Crowne' as early as April 1512,⁵ and on one occasion as 'King's Armourer',⁶ is an elusive personality whose exact functions are not clear. However, when in attendance he was entitled to stabling for three horses, and two beds for his servants, thus placing him on a level with the chaplains, gentlemen waiters, and clerks of the signet.⁷

Although it was necessary for him to serve at court when called upon to do so, Sabyn's duties cannot have been particularly onerous, for he was able to spend much of his time directing his mercantile interests, training apprentices, and establishing himself as one of the leading figures in Ipswich. In 1525 he was appointed weigher of the port in place of Thomas Baldry.⁸ Early the following year he imported a small quantity of wine into London,⁹ and in the late 1520's he was exporting cloths from Ipswich, and importing

1 *The Anglica Historia of Polydore Vergil*, ed. Denys Hay (Camden Series, LXXIV, 1950), pp. 297, 299.

2 *Letters and Papers of Henry VIII*, iv (iii), Appendix 247.

3 *Ibid.* ii (ii), no. 4509.

4 B.M., Harl. MS. 297, f. 255. According to this early sixteenth-century copy of an indenture drawn up in the time of Edward III, each serjeant was supposed to appear in the king's presence with 'his heade bare and all his Bodye armed to the feete with the armes of a knight Ridinge with a perone Roiall or mace of Silvere in his Right hande and in his lefte hande a little Troncheane'.

5 P.R.O., E 36/2, p. 38.

6 P.R.O., Early Chancery Proceedings, 935/33.

7 *A Collection of Ordinances and Regulations for the Government of the Royal Household* (Society of Antiquaries, London, 1790), pp. 147-8, 198-9. In comparison, a duke or archbishop was provided with stabling for twenty-four horses and nine beds for retainers.

8 *Letters and Papers of Henry VIII*, iv (i), no. 1136 (14).

9 P.R.O., E 36/183, p. 182.

salt and wine.¹ He also took part in the Iceland trade, for a certificate of the vessels which participated in 1533 shows him sending merchandise on one of his own ships.² A little later he is found bringing fish into Southampton.³ It is unfortunate that the appropriate customs records for the last years of his career are almost entirely lost, but there is evidence enough to show that he maintained his trading interests to the time of his death, and carried in his ships, the *James*, and the veteran *Sabyn*, many goods for his fellow Ipswich merchants.⁴ In 1538, when £200 worth of his own merchandise had been seized in Denmark as the result of false information given against him by a certain Scot, King Henry VIII himself wrote to Christian III on his behalf.⁵ Happy was the merchant who had such a powerful protector to help him through the perils of overseas trade.

Until his last years Sabyn appears to have taken little part in town affairs, although he must certainly have been looked upon as one of the most notable inhabitants in view of his naval service, and his friendship with so many distinguished men. An interesting entry in the town records shows that in November 1529 he was fined 20s., for 'divers opbrobrious and contemptuous wordes' spoken to Robert Daundy, a wealthy merchant and portman.⁶ Ten years later the two men were apparently chosen to be the borough's parliamentary representatives,⁷ but there is some doubt about the serjeant-at-arms because it is difficult at this period to distinguish him from his 'godson', William Sabyn *alias* West, who was also a prominent burgess.⁸ Most certainly it was the older man who was elected a portman in September 1537, on condition that he should, before the following Christmas, secure a royal licence to hold that position.⁹ Very probably he was bailiff on at least one occasion, sharing office with William Nottingham, a fellow merchant,¹⁰ and it may have been during this term of office that they wrote a letter to Thomas Cromwell about the town grammar-school, an old foundation which had been absorbed by Wolsey into his new, grandiose establishment. After the Cardinal's fall, the townspeople appear to have recovered the endowments of their original school, which now came under royal patronage. These developments were partly the result of action by Cromwell, who had been closely associated with Wolsey's scheme from the

1 P.R.O., K.R. Customs, 53/25, *etc.*

2 P.R.O., SP 1/80, f. 67v.

3 Southampton Port Book, 1534-5. I am indebted to Dr Alwyn A. Ruddock for this reference.

4 P.R.O., Early Chancery Proceedings, 500/26, 1175/52, *etc.*

5 *Letters and Papers of Henry VIII*, xiii (i), no. 738.

6 Ips. Corp. Recs., General and Petty Courts' Book (12-28 Hen. VIII), 21 Hen. VIII.

7 Bacon's *Annals of Ipswich*, ed. W. H. Richardson (Ipswich, 1884), p. 212.

8 His will is to be found in the Register of Deeds and Wills, 29 Hen. VIII-3 Eliz. (Ips. Corp. Recs.), f. 166 v.

9 Bacon's *Annals of Ipswich*, p. 210.

10 *Ibid.* p. 214, where the date of their bailiwick is given as 1539-40.

outset, but it is possible that Sabyn was also prevailed upon to use his influence to rescue the school from extinction. In their letter the bailiffs asked that the new schoolmaster should be a certain Richard Argentyn, a well-known preacher of Reformist beliefs who was apparently causing some considerable local interest, and who had undoubtedly impressed them. It is not certain that the young Argentyn was immediately appointed as a result of this request, although he became the schoolmaster eventually.¹

There is no doubt that Sabyn was one of the wealthiest inhabitants of early Tudor Ipswich. In the 1524 subsidy returns he was set down as having paid £7. 6s. 8d., the third highest amount in the east ward, but in the Anticipation, £6. 13s. 4d. is recorded.² By the time of his death he had certainly acquired a great deal of property in east Suffolk, and even owned two houses as far away as Cambridge. The most interesting of his possessions was the former Dominican Friary at Ipswich, which King Henry granted to him after the Dissolution.³ He himself lived at 'The Stillyarde', which was situated in the merchant-quarter of the port, not far from the riverside. Close by was the church of St Mary Quay, where he was a churchwarden, and one of whose aisles he is reputed to have built.⁴ There remains a brief glimpse of his first wife Alice sending their servant to that church with a 'box lokkyd and bownde abowte wyth Iron', and containing certain parish funds which he had left in her care while he was away in London for a fortnight, 'for Certeyn hye busynesses'.⁵ After her death he married Margaret, the widow of John Cole, a wealthy townsman of Colchester,⁶ and she survived him.

Sabyn's will, drawn up in March 1543, just before his death, gave instructions for the disposal of most of his property to the family of his sister, Elizabeth Davers, who had two sons by her former marriage to William Atwood *alias* Smith; but in accordance with the charitable spirit of the age, he made certain bequests to the poor, and to the church of St Mary Quay. Nor did he forget his godchildren, his apprentices, nor the master of his ship, the *James*, which he ordered to be set to work whilst arrangements were being made for its disposal. Of special interest is the stock of jewellery which he had accumulated over the years. His will refers to six gold rings, a hoop of gold weighing four pounds, five buttons of gold,

1 I. E. Gray and W. E. Potter, *Ipswich School, 1400-1950* (Ipswich, 1950), pp. 31-5.

2 *Suffolk in 1524*, ed. S. H. A. Hervey (Suffolk Green Books, Vol. x; Woodbridge, 1910), pp. 213, 216, 415.

3 *Victoria County History of Suffolk*, Vol. II, p. 123 (where he is erroneously referred to as William 'Aubyn').

4 John Wodderspoon, *Memorials of the Ancient Town of Ipswich* (Ipswich, 1850), p. 199.

5 P.R.O., Early Chancery Proceedings, 499/17.

6 *Ibid.* 926/7.

three crosses of gold, and a chain of gold with a cross and a crucifix upon it. A brooch of gold with imagery work was bequeathed to the King's Principal Secretary of State, Sir Ralph Sadler, whom he made the supervisor of his will, and to whose wife he left a further brooch of gold.¹

In his last months Sabyn was bedridden, no longer able to serve King Henry VIII, nor even to travel to London as he had done so often.² Perhaps it was some comfort for him to know that his ships could still be of use in the war against Scotland.³ If his wish was carried out he was buried beside his first wife in the church of St Mary Quay, but no indication of his last resting-place now remains.

1 Prerogative Court of Canterbury, F 21 Spert.

2 P.R.O., Early Chancery Proceedings, 935/33.

3 *Letters and Papers of Henry VIII*, xvii, nos. 827, 939, etc.

THE FOOT BOAT OF SHAOHSING

By G. R. G. Worcester

IF Shaohsing, one of the principal cities of Chekiang, had no other claim to fame, it would doubtless find sufficient glory in the fact that it is the burial place of the great Emperor Yü, who traditionally lived and died about the time of Abraham. The wonderful system of waterways for which the fertile Shaohsing plain is famous is attributed to him.

Marco Polo, when he visited the city, found enough canals to exclaim: 'This is the Venice of China'.¹ Until quite recently there were no roads in this part of Chekiang, and the city could be reached by boat only; even now practically all commerce depends on the slow-moving boats on the canals, which run in all directions.

Here, at Shaohsing, is the home of the deservedly famous Foot Boats, the lightning-express of China. They are long and slender, though by no means light, boats, and are said to be the direct descendants of the well-known post boats of the T'ang Dynasty, A.D. 618-907; indeed, even until comparatively recent times they were used by the Hsin Chu, or Postal Hongs for the carriage of mails and later, when it was inaugurated, for the Express Letter service. To-day, however, their main purpose is the rapid transport of passengers and light luggage, and they are still in demand for fast journeys of 10 to 15 miles. What makes them unpopular is that they are often used by agents when collecting rents. Human nature in China much resembles its European counterpart.

The boat is strengthened by seven bulkheads, the centre one being exactly amidships. From the after bulkhead to the stern the deck is flush with the gunwale and is exclusively used by the oarsmen. Two midship wells, with a half bulkhead in each, serve for the passengers, who sit on the bottom of the boat or lie down as they may desire. All floor boards are loose and serve as seats if required. In any case there can be very little moving about, as the boat is very easily capsized.

The boat is furnished with a phoenix type of oculi. These take the form of two crude painted wooden bosses, nailed upon the fore part of the broad low bow. Not only is this type of eye most uncommon, but it is the only inland craft where the oculi are present.

The mat-roofing is in three parts, which can on fine days be slid along, allowing the passengers to enjoy the fresh air, and on rainy days the boat

¹ Marco Polo uttered this aphorism in many places in China.

can be entirely closed in. By stretching the imagination a little it might perhaps be said that the boat somewhat resembles a Thames punt in that the passengers lie out in comparative comfort and that both craft have about the same amount of freeboard. Here, however, the resemblance ceases.

The foot boat of Shaohsing

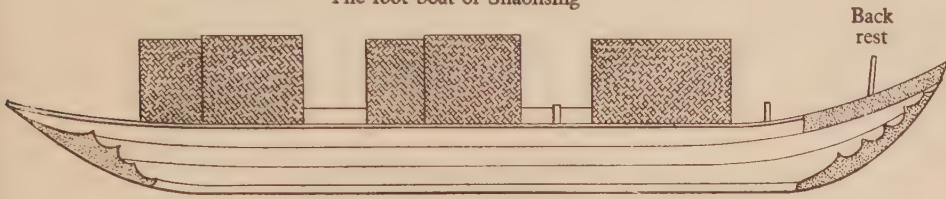
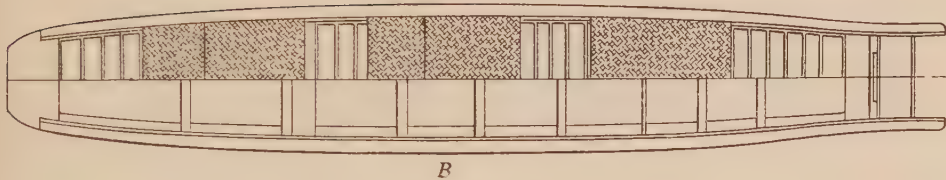


Fig. 1

Section at
A-B

Oar



Scale

0 - 1

10 Feet



Fig. 2

The craft is, of course, remarkable for its unusual method of propulsion. Its entire propelling equipment consists of an oar and a four-foot paddle. The oar, which is retained in position by a thole-pin and grummet, is shipped on the starboard side and is operated by the oarsman's feet as is shown in Fig. 3 A-E, while the paddle is used on the port side to supple-

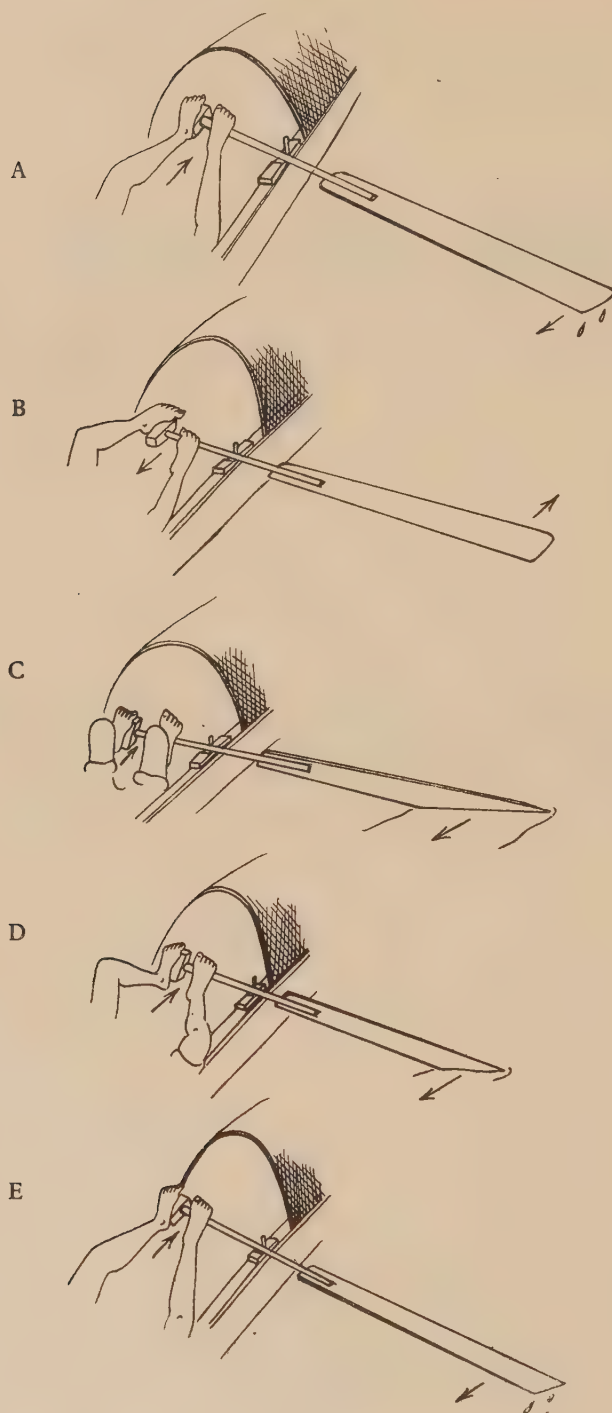


Fig. 3

ment the oar and to steer. A rudder is provided, but is seldom used. The tiller is short and is operated by movements of the oarsman's back. To watch these boats in operation is to believe that it is the one craft in the world that provides the maximum amount of human propulsion for the minimum of effort.

With an almost indescribable movement of his feet, the oarsman works his long oar backwards and forwards, even causing it to feather as it skims forward over the water for the next stroke. Bracing himself against his

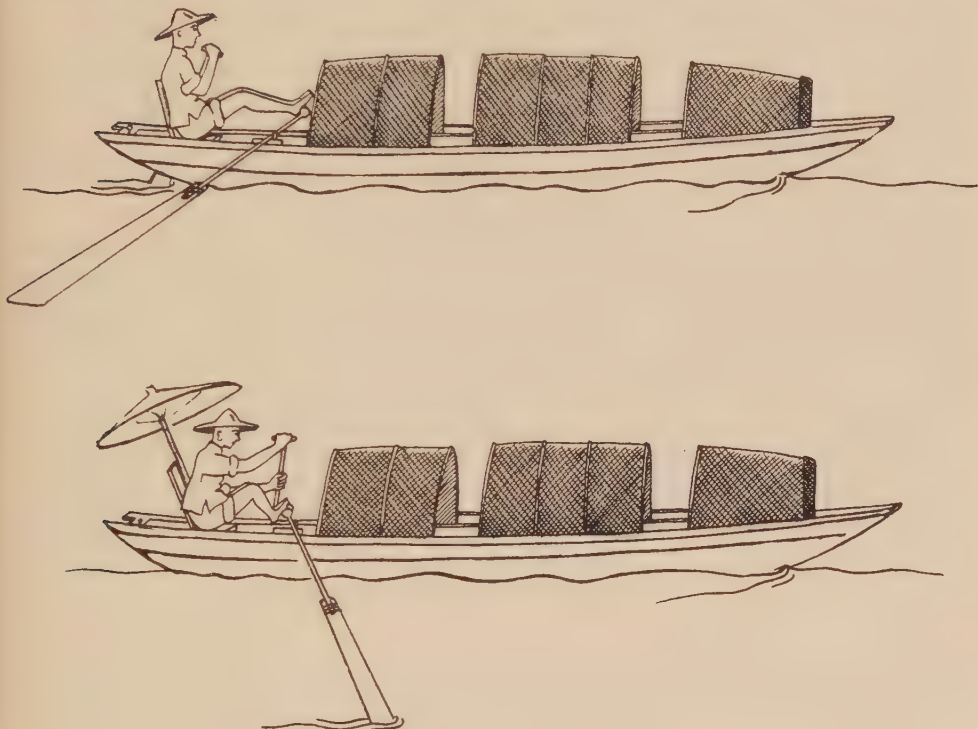


Fig. 4

backrest and bringing up his legs, his knees nearly touching his chin, he puts his whole weight into the stroke and sends the boat forward at a rapid rate. The movements are repeated quite quickly.

The mechanics employed in returning the oar for the stroke are very interesting. What seems so remarkable is the fact that the oarsman steers and considerably augments his speed with the paddle, yet often does so without appearing to synchronize the action of feet and arms.

This method of rowing might, on paper, seem clumsy and slow; but it is quite amazing how powerful it is in operation. Experienced oarsmen are

so nonchalant in their performance that the oar appears to come back to the beginning of the stroke of its own volition. Actually, however, the oar is feathered by both feet and is drawn back to the body by the dexterous use of the big toe of the left foot, see Fig. 3B.

The endurance of the oarsmen is quite phenomenal; some have been known to row for 24 hours. A trip from Hanchow to Shanghai, 150 miles away, has been recorded in 36 hours.

The hulls of many of these boats are painted throughout their length and here the shipwrights display their artistic ability and their knowledge of history, religion, and mythology on vividly painted panels. Here may be seen pictures of gods and goddesses, mountains and trees, gardens and flowers, ladies and children, sages admiring the moon, poets seated in pavilions, travellers on hills and sometimes fishermen in boats. The more modern craft, however, are painted green and a red conventional device at bow and stern as is shown in the gradated part of Figure 1.

There is a grotesque air of ease and leisure about these boatmen. Shaded by an ample paper umbrella, stepped in a bamboo socket they kick their way along while cooking, eating, smoking, conversing with their passengers and even playing the flute without reducing speed. They appear to have an air of superiority over those who toil with their hands.

But, unhappily, the days of these nimble little boats are numbered. The march of science in the shape of the diesel-driven launch is able to do all a Foot Boat can do and very much more besides. Nevertheless, one cannot but regret the passing of these interesting boats and the skilful oarsmen who operate them.

RECORDS

NELSON MANUSCRIPTS AT THE NATIONAL MARITIME MUSEUM

By K. F. Lindsay-MacDougall

After Nelson's death, in accordance with the terms of his will, his personal possessions, including his papers, were divided among his family and friends. A large portion of his papers went to his brother, Earl Nelson, but Lady Hamilton inherited those which were at Merton at the time of his death. His widow, Lady Nelson, was also in possession of a part of his papers, mostly those for the early years of his career, and his sister Mrs Bolton had a fair-sized collection which she had made during her brother's lifetime. In addition to these Nelson papers, there were countless letters written by him to his friends and colleagues which were preserved among their papers. All these documents provided a wealth of material for Nelson's biographers and much of it was reproduced in print. As Joseph Allen wrote in the preface to his *Life of Nelson* in 1852, '... After the Battle of the Nile, scarcely a line—a note—a scrap of paper bearing Nelson's writing upon it was lost sight of. Everything relating to him was carefully treasured up. Letters to his wife, his father, brothers, shipmates, friends—everybody, no matter what the subject, were jealously hoarded... scarcely anything, however crude and ill-considered, has been kept back...' Many of these papers are now at the National Maritime Museum in different collections, and by studying the provenance of these papers and comparing the items with those described in the collection of sale catalogues included among the Nelson-Ward papers, the history of the Nelson manuscripts now in the museum can be traced.

Of the three main collections mentioned above, the only one which is not represented in the museum, is that which was owned by Lady Nelson. These papers, which were used by Clarke and McArthur for their life of Nelson, were not seen by Sir Harris Nicolas when he was preparing his work on Nelson letters, in 1844. The collection was not heard of again until the end of the last century when some articles were written about it in a literary periodical and in 1914 the whole collection, which had remained in the hands of Lady Nelson's descendants, was offered for sale at Christies. It consisted of some letter and order books, logs and journals and much original correspondence including Nelson's letters to his wife. The collection was subsequently bought by Lady Langatock and presented to the Nelson museum at Monmouth, where it has been used for recent works on Nelson.

The great number of Nelson papers owned by Earl Nelson, Lady Hamilton having apparently given him some that were at Merton, was left by him to his daughter Charlotte, his son having predeceased him. According to Sicilian law she was able to inherit the duchy of Bronte and both it and the family relics descended to her son, Viscount Bridport. In 1895 he sold the bulk of the Nelson papers, a special grant of Parliament being made to enable the British Museum to purchase them. The papers, catalogued as Additional MSS. 34,902-34,992 include original letters received by Nelson during his service career, some draft memoranda, pressed copies of letters which he had written, and letter book copies of some of his correspondence. There are several logs of ships under his command at different times, and some private journals in addition to family correspondence, including letters from his wife. In 1933 a selection of the more important papers still in the hands of the Bridport family was offered for sale at Sothebys. One purchaser, Sir Malcolm Stewart, bought for the N.M.M. Among the lots he obtained was a series of papers relating to the arrangements for Nelson's funeral, two copies of codicils to his will and a holograph memorandum of his services written in 1793. There were also some early letters and a receipt from Lady Hamilton to Earl Nelson for the payment of her pension from the Bronte estate dated June 1810. This collection is now known by the name of its donor, as the *Stewart Papers*. A set of six of Nelson's commissions was also sold at Sothebys in 1933 and was acquired by the Society for Nautical Research, by whom it has been deposited on loan to the museum.

A legal copy of the first codicil to Nelson's will dated 13 May 1803 was presented to the National Maritime Museum from the same sale. This is now in the *Autograph collection*.

In 1948, Viscount Bridport deposited on loan a further collection of family papers. In addition to a legal copy of Nelson's will, duplicate of that at Somerset House, and some drafts and memoranda written by Nelson, it contains a number of letters written between the members of the first Earl Nelson's family, among them several from his son and daughter while they were being educated by Lady Hamilton. There is also a series of receipts from Lady Hamilton for her pension. These papers are catalogued at the N.M.M. as the *Bridport papers*. The whole of this collection of Nelson papers has been used extensively by Nelson's biographers from Clarke and McArthur onwards, and it was quoted by Nicolas as the source of many of the documents which he printed, but scant reference has been made to the inter-family letters.

The history of the third important collection of Nelson's papers, that inherited by Lady Hamilton, forms a very complicated story, the collection being broken up within a few years of Nelson's death. There is no contemporary description of these papers, but they formed the basis for the first life of Nelson, that written by James Harrison under Lady Hamilton's patronage. In the preface to his work, the first volume of which appeared in April 1806, Harrison acknowledged the numerous invaluable documents to which he had been given access and indicated that there was enough material to justify a supplementary work. He also paid tribute to the fact that he had been allowed to work at Merton '...surrounded by all who were most dear to the heart of the hero'. In September 1806 Harrison was still at Merton with his family and Lady Hamilton retained a high opinion of his ability and character as late as 1809, when she advised Mr Davison to allow Harrison to take up his case. 'Pray see Harrison when he calls I beg you', she wrote, 'he is a true friend and will serve you with his talents.' When an anonymous book was published in 1814 consisting of a series of letters written to Lady Hamilton by Nelson with a few other letters by members of his family, Lady Hamilton denounced it as being produced without her knowledge, and asserted that some papers had been illegally obtained and made the foundation of invented letters by a 'vile mercenary wretch'. Writing to a friend Alderman Smith, just after the appearance of the book, she said 'I have begged of Sir William Scott to speak to you and the Lord Chancellor to lay an injunction on the scoundrels Harrison and Lovell for the stolen letters'. The fact that no subsequent biographer quoted from these letters was taken by many as proof of Lady Hamilton's assertion that the letters were Harrison's handiwork, but the whole series of letters as printed is now in the National Maritime Museum among the manuscripts which were bought from the library of Sir Thomas Phillipps of Middle Hill. From letters and papers in that and other collections, and from sale catalogues the subsequent history of this batch of letters has been traced.

When Thomas Lovewell, who had published the letters, went bankrupt in 1817, among his effects, which were ordered to be sold, were a number of papers. The catalogue described these as 'Lord Nelson's papers, containing letters, books of letters and sea journals with other important and interesting manuscripts...also a considerable collection of unpublished letters addressed to Lady Hamilton by the Queen of Naples and other distinguished characters, including the originals of those letters lately published under the title of "Lord Nelson's letters to Lady Hamilton"—the whole of which will be sold by auction in one lot....' The purchaser was John Wilson Croker, then secretary to the Admiralty, and the papers remained in his possession until his death in 1857. During the years of Croker's ownership, Sir Harris Nicolas was preparing his seven-volume work on Nelson's letters and dispatches, and in the preface to the third volume which appeared in June 1845, he wrote: '...Since the publication of the second volume of this work the editor has obtained additional materials of great value. It will be perceived that the authority for most of the documents now printed is Lord Nelson's letter book, or Order book—manuscript volumes containing a full copy of all his public and many of his private letters, and of every order issued by him. These important manuscripts together with a very large collection of letters and other papers (of a similar kind to those entrusted to the editor by Lord Bridport and referred to as the "Nelson Papers") are in the possession of the Right Honorable John Wilson Croker....' Some of the letters published by Lovewell in 1814 were included by Nicolas, but the authority given for these

was the printed version not Croker's papers. From correspondence in the Nelson–Ward Collection it appears that Nicolas told Mrs Ward, formerly Horatia Nelson, Nelson's adopted daughter, of the existence of the letters published by Lovewell, after the appearance of his last volume of Nelson's Letters and dispatches. He had already learnt from Mrs Ward that Harrison could be cleared of the charge of obtaining the letters illegally as she had written to him in November 1844 '... that Harrison had papers of Lady Hamilton's to make a selection from to publish I know, as in 1809 when we were at Richmond a large box quite as large as the one which holds Lord Nelson's letters in your study was sent to his house...' But Mrs Ward, in spite of this, had firmly believed that the letters as published were concocted by Harrison, and she had given Nicolas a full account of the passages she considered to be Harrison's invention. In August 1846, on hearing from Nicolas about the letters, she wrote: 'Most correctly have you judged when you said that I should be much shocked to find those wretched letters are genuine... I cannot however help rejoicing that those letters did not come under your notice till after the 7th volume was published, had you seen them earlier you would have felt bound to take some notice of them, now they cannot sully his fame as I firmly believe most of the readers of that unfortunate publication of Mr Harrison's disbelieved them. Better so...'

After Croker's death, the papers were sold by auction and bought by Sir Thomas Phillipps. The letter books listed in Lovewell's catalogue were not included in this sale, as Croker had left them at the Admiralty, where they remained until the British Museum acquired the Nelson papers in 1895, when they were sent to the museum to complete the series of letter books. Phillipps divided his purchase into five groups and entered the papers in his library catalogue as follows:

- 29912. Letters received by Nelson arranged alphabetically by the name of the writer A–Z.
- 29913. Lady Hamilton's general correspondence. Secretary to the Admiralty to Nelson.
- 29914. Nelson's letters to Lady Hamilton.
- 29915. Miscellaneous documents, autograph drafts, Admiralty letters, etc., addressed to Nelson.

It was in this form that the collection was acquired by the National Maritime Museum in 1946 and is now catalogued under the *Phillipps Collection*. These papers have not been used by any of Nelson's biographers except James Harrison, and possibly the Reverend J. S. Clarke.

The collection just described only formed part of Lady Hamilton's Nelson papers. When she obtained financial assistance from Alderman Smith in 1813, she surrendered to him her possessions in the house at Richmond where she had gone in 1809 on leaving Merton. Among them, with other Nelson relics, was a trunk full of papers. A few of these were transferred by Alderman Smith to his servant, John Kinsey in 1830 and this little batch of about thirty documents soon came into the market. The majority of them were acquired by the third Earl Nelson and subsequently came to the National Maritime Museum in 1947 with other relics from Trafalgar House. Apart from the letters known to be acquired through Kinsey, the *Trafalgar Collection* includes some correspondence of Alderman Smith, a few drafts and memoranda written by Nelson and a portion of his weather log kept while he was in the *Victory*. There are also a few family letters and some correspondence from the Rev. Philip Ward, Mrs Ward's husband. The limited nature of this collection was due to the first Earl Nelson having left the heirlooms to his daughter and not his heir, Thomas Bolton, his and Nelson's nephew. The Bolton family assuming that Thomas would inherit the heirlooms with the title divided their Nelson papers between his sisters, Catherine and Elizabeth, so that the only Nelson document which the second Earl inherited was the portion of Nelson's weather log for 1803 which had been given to his mother. As he died within 12 months of succeeding to the title, it was left to the third Earl to build up a collection of Nelson relics and papers at Trafalgar House. The papers he got through Kinsey, which were the nucleus of his collection, included the grants of arms made to Nelson, some of the borough freedoms he had received, a letter from Nelson to Lady Hamilton and another to Horatia. The Earl also collected other letters written by Nelson, a copy of the rules of the Order of the Bath, and some papers of Alderman Smith's about the disposal of Lady Hamilton's possessions in 1813 and 1814, among

them a copy of the sale catalogue for July 1813 when Nelson relics came into the market for the first time. The whole collection amounts to only 50 items.

The greater part of the papers which Alderman Smith had received from Lady Hamilton were still in his widow's possession in 1844, for in that year a dealer, T. A. Evans of Maddox Street, who was collecting Nelson relics, entered into correspondence with her. Mrs Smith told him that in addition to the coat and waistcoat worn by Nelson at the battle of Trafalgar, she had a box which she believed was full of papers, and she promised to let him know when she opened it. Evans got a handful of letters from Mrs Smith which he printed in 1846 as the appendix to his pamphlet about Nelson's coat. These letters were sold at Putticks in 1849 when Sir Thomas Phillipps bought about half the collection, some 14 documents. Most of them were letters of little importance addressed to Lady Hamilton, but there were two drafts of Nelson letters and one letter from Lord Spencer to Nelson. Sir Thomas Phillipps continued to purchase what Nelson items came his way and the collection he made included Nelson's letter to Alexander Stephens refuting some of the statements made by Helen Maria Williams about the Neapolitan rebels, some letters written by Nelson and a series of letters from Lord Spencer to Nelson. There are also some legal documents referring to the Nelson family and the agreements made between Lady Hamilton and Alderman Smith in 1813 and 1814 when he came to her rescue financially. These fit in with the letters in the *Trafalgar collection*.

After 1844 the wanderings of Lady Hamilton's papers are very difficult to trace. The next mention of the collection is found in the *Memoirs of the Life of Vice-Admiral Lord Nelson* published in 1849 by Thomas J. Pettigrew, who wrote in his preface that he had been inspired to write this work after an examination of Lord Nelson's private correspondence which had come into his hands. Since this included many letters from Nelson to Lady Hamilton, it is probable that Pettigrew acquired his collection direct from Mrs Smith. Having used it for his book, he put it into the sale room in 1853. One of the principal purchasers on this occasion was Joseph Mayer of Liverpool, a well-known collector. When the papers were sold again in 1887 they were bought by Alfred Morrison, who had obtained a collection of Sir William Hamilton's papers in the previous year. In 1893 Morrison printed the letters in these two collections under the title 'The Hamilton and Nelson Papers'. Full transcripts of the letters were given, the provenance of each being shown by the letter 'H' or 'P' for Hamilton or Pettigrew. After Morrison's death these papers again came into the market, and were widely dispersed, but as Morrison had marked each letter with a 'h' or 'p' they are easily recognized.

About one-third of the papers owned by Morrison were acquired by the Rev. Hugh Nelson-Ward, who gave them and his other Nelson papers to the National Maritime Museum in 1937. Although the Morrison items, 284 in all, form the bulk of the *Nelson-Ward papers*, the collection has many other important features. It originated in the papers inherited from Lady Hamilton by Horatia Nelson, who later added others which she collected, including the series of notes written by Lady Hamilton to Mrs Gibson, her nurse. Later, as Mrs Ward, she added copies of her correspondence with Sir Harris Nicolas and others about her origins and upbringing. Her grandson the Rev. Hugh Nelson-Ward obtained many Nelson items and also a valuable collection of sale catalogues of Nelson relics and papers from 1853 to 1936, through which many documents can be traced. The inventories of Lady Hamilton's possessions connect with the correspondence of Alderman Smith in the *Trafalgar collection*, and there is also Lady Hamilton's copy of her will written at Merton in 1806. There are a few letters which were owned by Pettigrew, but not bought by Morrison.

The *Walter Collection* of Nelson manuscripts now in the National Maritime Museum also includes some items bought at the Morrison sales between 1917 and 1919. One item, a letter from Lady Hamilton to Sir William Scott in 1814 was previously owned by Mr J. Holding who had a large number of papers used by Pettigrew. Mrs Gamelin, the author of *Nelson's Friendships*, published in 1896, quoted extensively from Mr Holding's collection, while denouncing the papers which had passed through Mr Mayer's hands as probable forgeries, without realizing that both sets came from the same source—Pettigrew. Mr Walter, who collected with much

discrimination, included an example of all the known forms of Nelson's signature, six in all, and two pictorial records, the drawings made at Merton by Thomas Baxter, and the designs for the heraldic banners used at Nelson's funeral.

The *Autograph Collection* at the National Maritime Museum contains a few Nelson letters which can be traced back to Pettigrew's collection. A series of letters from Lady Hamilton to Charles Greville from 1782 to 1799 which came from the Morrison sale was given to the museum by Sir Malcolm Stewart in 1938. Although no complete list of Lady Hamilton's Nelson papers was ever made, there can be little doubt that the greater part of her collection is now in the National Maritime Museum in various collections. Sir Harris Nicolas stated that '... a great part of her letters were purchased by Mr Croker in 1817' and these, now in the Phillipps collection, with the papers which are known to have come from Alderman Smith and those which have come from the Morrison collection amount to some 2500 documents in all.

One other inherited collection of Nelson papers to which reference has been made, is that which came through the Bolton family to the Misses Girdlestone. These papers, which were collected by Nelson's sister, Mrs Bolton, include letters written to her and her husband by Nelson, together with various autograph drafts and memoranda of Nelson's and some Bolton family letters. The papers, which were used by Sir Harris Nicolas, were at that time divided between various branches of the family, but intermarriage between the Boltons and Girdlestons brought the collection together again in the hands of the Misses Girdlestone, Nelson's great-great-nieces, by whom it was put into the sale room with other Nelson relics. Some of these papers found their way to the National Maritime Museum where they are catalogued as the *Girdlestone Collection*.

These collections of Nelson papers, that is of original documents which were received by Nelson or copies or drafts of documents which he wrote, are supplemented by a number of letters which he wrote or signed, preserved among the papers of those to whom they were addressed. Sometimes these letters have been extracted and sold separately, but in several collections of the papers of Nelson's friends and colleagues, now in the National Maritime Museum, his letters are to be found. The most important of these series of Nelson letters is that in the *Jervis Papers*, a collection inherited by Lord St Vincent's nephew, Sir William Parker which came to the museum with Sir William Parker's papers. It includes 375 letters written by Nelson between the years 1795 and 1804, many of which were printed by Nicolas who obtained permission to see them after some difficulty. The *Berry Papers*, recently presented to the museum by the descendant of Sir Edward Berry, contain twenty-five letters written by Nelson from 1797 to 1805, three of which were not quoted by Nicolas, while some of the others were only printed in part. The *Elliot Papers*, which include the correspondence of Sir Gilbert Elliot, Viceroy of Corsica from 1794 to 1796, contain a long series of letters from Nelson between 1794 and 1795 as well as a number written during the latter part of Nelson's career. The *Hood Papers*, now on loan from Viscount Hood, have Nelson's letters to Hood in 1794, and the *Keith Papers* which are also in the museum have several letters from Nelson but these have not been extracted to form a series on their own and are still in their chronological order. Several other collections have a few letters or orders signed by Nelson, such as the *Cornwallis papers*, and the papers of Admiral Sir Charles Pole. The letters written by Nelson to the Duke of Clarence, later William IV, have been separated from their original collection and their provenance is not now known. Another collection of letters which has become isolated in the sale room is that of Lady Hamilton's letters written to Alexander Davison between 1806 and 1814.

Individual Nelson items acquired in the sale room or by gift to the museum are now catalogued in the museum *Autograph Collection*. A few of these letters can be traced back to Pettigrew's ownership, but most of them are difficult to identify. One of the most interesting of these Nelson manuscripts is the duplicate of part of Nelson's last diary which includes the prayer before the battle of Trafalgar and the final codicil to his will, duly signed and witnessed. This duplicate was seen by Nicolas in 1846 when it belonged to Philip Toker and was later given to Greenwich Hospital. One leaf of the original codicil which appears to have been extracted from Somerset House some time before 1846 is also now in the museum. Although many of these documents have been quoted by Nelson's biographers, and printed by Nicolas in part or *in extenso*, there are a considerable number which have not been published and a comparison of the transcripts with

the originals often reveals discrepancies and misreadings. Much additional information on Nelson, his friends and his family circle is provided by these papers, and his service career is further documented by the official logs kept by him while a junior officer, which are included among the Lieutenants' Logs now in the National Maritime Museum among the Admiralty records which have been deposited in it. These logs include those for the following ships:

| | |
|---------------------|---------------------------|
| <i>Lowestoft</i> | April–July 1778 |
| <i>Bristol</i> | July–December 1778 |
| <i>Badger</i> | January–June 1779 |
| <i>Hinchinbroke</i> | September 1779–March 1780 |
| <i>Agamemnon</i> | February 1793–June 1796 |
| <i>Captain</i> | June–September 1796 |

ENGLISH MERCHANT SHIPPING IN 1701

By J. H. Andrews

Lists of ships belonging to English ports are rare in the early eighteenth century. The only records of this kind which are generally known to historians are those of the Musgrave Papers (British Museum: Additional MS. 11,255), which give the tonnage of shipping belonging to each port at seven-year intervals from 1709 to 1751 and annually from 1752 to 1782, distinguishing between vessels engaged in fishing, coastwise trade and foreign trade. The Musgrave lists suffer from several disadvantages. In the first place, they begin in 1709, which was a quite unrepresentative year owing to the effects on trade and shipping of the War of the Spanish Succession. Secondly, they mention only the total tonnages of shipping without giving the actual numbers of ships. Thirdly, many of the totals may well be inaccurate: they often remain suspiciously constant over long periods, although the volume of shipping actually engaged in trade must have varied from one year to another. Finally, like all other statistics of trade and navigation, the figures refer not to ports in the topographical sense, but to Customs ports, which were lengths of coast often containing several maritime towns. In Kent, for example, the Musgrave lists make no mention of Ramsgate and Margate: although they each possessed more shipping than any other place in the county, these two ports were grouped with Sandwich in the tables.

In view of these defects the Musgrave Papers may usefully be supplemented by the figures quoted below. These have been extracted from the letters from the Customs Commissioners to the Admiralty (Record Office: Adm. 1, 3863, 29 January 1702). With the approach of war in 1702, the Admiralty began to concern itself with the impressment of seamen and the commandeering of vessels, and the most accurate available information about the distribution of ships and mariners was obtained from the registers kept by the Customs Commissioners. A second and slightly different version of this list has been mentioned by earlier writers,¹ but the figures do not appear to have been published in full.

It is interesting to compare the totals given below with those contained in the Musgrave Papers. They include separate figures for several ports not mentioned in the lists of 1709–82: Aberdovey, Broadstairs, Brighton, Guernsey, Jersey, Margate, Ramsgate, Scilly, and Whitstable with Herne. Of these Brighton and Ramsgate were surprisingly important shipping centres, ranking fourteenth and fifteenth respectively among all English ports (including London) in 1701. On the other hand, the Customs Commissioners' list makes no mention of Aberystwyth, Carmarthen, Llanelly, Lymington, Neath, Preston, Piel and Foulney, Southwold, Tenby and Ulverston, which are all listed in the Musgrave Papers. Neither list gives any figures for London, which first appears in the Musgrave Papers only in 1751, but Capper's list allows London 560 ships, totalling 84,882 tons, with 10,065 men.

¹ E.g. by C. Capper, *The Port and Trade of London*, 1862, p. 109. Capper gives figures for the eight largest ports, including London. His figures for Whitby (110 ships, 8292 tons, 571 men) are different from those given below.

A full discussion of the figures would occupy many pages and cannot be undertaken here, but it is at once apparent that although the title of the list mentions ships 'in the several outports' the totals refer to ships *belonging* to the ports. A ship 'belonged' to the port where its owners resided,¹ and there was of course no precise correspondence between the distribution of merchant shipping as thus defined and the distribution of maritime trade. Small-scale local traffic was usually carried by ships belonging to one of the terminal ports of the voyage, but there were several branches of trade for which certain ports specialized in providing ships without themselves taking any prominent part in the import or export business. This specialization seems to have been carried furthest in the coal trade and the trade in timber and naval stores; it accounts for the most surprising feature of the table quoted below, that certain east coast ports, such as Whitby, Scarborough and Ramsgate, possessed a tonnage of shipping out of all proportion to their trade. There are two contemporary shipping lists which confirm this. In 1702-4 the principal ports providing ships for the Newcastle coal trade were as follows:²

| | Ships | Chaldrons | | Ships | Chaldrons |
|----------|-------|-----------|-------------|-------|-----------|
| Yarmouth | 211 | 13,272 | Newcastle | 71 | 5,567 |
| London | 168 | 11,230 | Lynn | 74 | 3,397 |
| Whitby | 98 | 6,385 | Scarborough | 54 | 2,613 |
| Ipswich | 40 | 5,774 | Ramsgate | 42 | 2,147 |

English ships passing through the Sound into the Baltic in 1701 included 33 belonging to Hull, 30 from Newcastle, 24 from Margate, 23 from Ramsgate, and 22 from London. No other English port sent more than 8 ships through the Sound.³

Another striking feature of the figures is the very small size of English merchant shipping in 1701. London ships averaged 151 tons, ships of the outports 62 tons. Ships varied greatly in size from port to port; on the whole the ports with the most trade, and the ports whose vessels specialized in the coal trade, possessed the largest ships. Ipswich, famous for the size of its colliers, ranked first with an average of 286 tons, followed by Colchester (108 tons), Bristol (105 tons), Ramsgate (91 tons) and Liverpool (84 tons). At the other end of the scale, the ships of Aberdovey, Beaumaris, Carlisle and Cowes averaged 15 tons burden or less.

The foregoing notes, and the list on which they are based, give no more than a rough sketch of the relative importance of English seaports in the field of merchant shipping at the opening of the eighteenth century. To confirm and amplify this account the student must turn to the Port Books of the individual ports. These documents (Record Office: E. 190) almost always state the port to which each ship belonged, and often record the burden of the ships and the numbers of men in their crews. As yet, however, the Port Books have hardly been studied from this point of view.

¹ An Abstract of the Number of Vessels, Total of their Tonnage and the Complement of mariners belonging to them in the several outports according to the Accounts received from the respective Ports the Last Year.

| Ports' Names ⁴ | Ships | Number of | | |
|---------------------------|-------|-----------|-----|------|
| | | Tons | Men | Boys |
| Arundel | 10 | 465 | 22 | 10 |
| Aberdovey | 1 | 14 | 2 | — |
| Aldeburgh | 22 | 1,761 | 76 | 21 |
| Boston and Spalding | 12 | 508 | 58 | — |

¹ T. S. Willan, *The English Coasting Trade, 1600-1750*, 1938, Appendix 6.

² J. Brand, *The History and Antiquities of the Town and County of the Town of Newcastle on Tyne*, 1789, Vol. II, p. 677.

³ N. E. Bang and K. Korst, *Tabeller over Skibsfart og Varetransport Gennem Øresund, 1661-1783*, 1930, Vol. I, p. 227.

⁴ The ports are listed in the same order as in the original. Spelling has been modernized.

| Ports' Names | Ships | Number of | | |
|-------------------|-------|-----------|-------|------|
| | | Tons | Men | Boys |
| Bristol | 165 | 17,338 | 2,359 | — |
| Broadstairs | 17 | 731 | 90 | — |
| Bideford | 84 | 6,299 | 977 | — |
| Bridgwater | 33 | 1,287 | 171 | — |
| Blakeney cum Cley | 12 | 520 | 46 | — |
| Beaumaris | 1 | 14 | 2 | — |
| Brighton | 77 | 4,185 | 308 | — |
| Bridlington | 41 | 2,470 | 212 | — |
| Barnstaple | 78 | 3,489 | 360 | — |
| Berwick | — | — | 295 | — |
| Cowes | 55 | 776 | 104 | — |
| Carlisle | 1 | 15 | 4 | — |
| Colchester | 34 | 3,675 | 344 | — |
| Chichester | 18 | 610 | 40 | — |
| Cardiff | 11 | 218 | 29 | 6 |
| Cardigan | Nil | — | — | — |
| Chepstow | 28 | 744 | 122 | — |
| Chester | 25 | 1,925 | 196 | — |
| Dartmouth | 28 | 1,554 | 232 | — |
| Deal | 1 | 50 | 5 | — |
| Dover | 7 | 415 | 44 | — |
| Exeter | 121 | 7,107 | 978 | — |
| Faversham | 32 | 888 | 22 | 25 |
| Falmouth | 18 | 894 | 112 | — |
| Fowey | 23 | 713 | 110 | — |
| Gweek | 5 | 110 | 20 | — |
| Gloucester | 48 | 1,289 | 168 | — |
| Guernsey | 32 | 1,260 | 180 | — |
| Hull | 115 | 7,564 | 187 | — |
| Hastings | 35 | 1,161 | 78 | 50 |
| Harwich | 26 | 876 | 78 | — |
| St Ives | 15 | 404 | 44 | — |
| Ilfracombe | 15 | 358 | 53 | — |
| Ipswich | 39 | 11,170 | 576 | — |
| Jersey | 40 | 2,039 | 296 | — |
| Lyme Regis | 16 | 723 | 120 | — |
| Looe | 10 | 224 | 40 | — |
| Lynn | 86 | 5,702 | 526 | — |
| Lancaster | 21 | 780 | 146 | — |
| Leigh | 12 | 435 | 33 | — |
| Liverpool | 102 | 8,619 | 1,101 | — |
| Maldon | 16 | 627 | 17 | 14 |
| Margate | 37 | 2,909 | 138 | — |
| Milton | 34 | 807 | 53 | — |
| Milford | 32 | 995 | 141 | — |
| Minehead | 30 | 1,094 | 137 | — |
| Newhaven | 4 | 115 | 13 | — |
| Newcastle | 63 | 11,000 | 580 | — |
| Portsmouth | 81 | 3,651 | 243 | — |
| Penryn | 8 | 278 | 35 | — |

| Ports' Names | Ships | Number of | | |
|-------------------------|-------|-----------|--------|------|
| | | Tons | Men | Boys |
| Plymouth | 58 | 2,969 | 422 | — |
| Padstow | 23 | 509 | 65 | — |
| Poole | 75 | 2,095 | 327 | — |
| Poulton | 8 | 100 | 19 | — |
| Penzance | 8 | 236 | 41 | — |
| Rye | 7 | 233 | 8 | 10 |
| Rochester | 22 | 1,054 | 70 | — |
| Ramsgate | 45 | 4,100 | 388 | — |
| Sunderland | 48 | 3,896 | 193 | — |
| Sandwich | 21 | 1,146 | 104 | — |
| Shoreham | 3 | 150 | 11 | — |
| Stockton | 38 | 1,278 | 142 | — |
| Swansea | 37 | 1,468 | 164 | — |
| Scarborough | 100 | 6,860 | 606 | — |
| Southampton and Members | 91 | 3,814 | 291 | — |
| Scilly | None | — | — | — |
| Truro | 6 | 190 | 15 | 5 |
| Wisbech | 12 | 450 | 57 | — |
| Wells | 47 | 1,970 | 224 | — |
| Whitehaven | 90 | 7,205 | 725 | — |
| Whitstable and Herne | 33 | 701 | 11 | 35 |
| Weymouth | 34 | 2,270 | 206 | — |
| Woodbridge | 9 | 280 | 28 | — |
| Whitby | 109 | 6,819 | 650 | — |
| Yarmouth | 143 | 9,914 | 668 | — |
| Total | 2,944 | 182,562 | 17,758 | 176 |

Memorandum That in the navigable Rivers of this Kingdom There are great numbers of Bargemen, Lightermen and Watermen and in all the ports a great many Fishermen (though mentioned at Berwick only) which do not fall within the Compass of this account as not being employed in the Overseas or Coast Trade and yet may be useful for the service of the Royal Navy.—London 29th January 1702.

NOTES

ANCIENT BOAT IN THE HUMBER

In a recent book, *Portraits of Rivers*, the section devoted to the Trent contains the following statement: 'From the Humber Estuary just below Trent Falls archaeologists have recently dug the oldest boat ever to be discovered anywhere in the world; it is a canoe-like craft, built of oak, with its dimensions and mode of construction bearing a remarkable resemblance to the slender Narrow Boats, sometimes called Monkey Barges, which still trade up and down the Trent and its tributaries'. Does this refer to one of the North Ferriby boats or to some other find? The site of its discovery must have been very near North Ferriby, but it seems most unlikely that there can be much resemblance in method of construction between the boats from there and modern 'narrow boats'. If the author had one of the North Ferriby boats in mind, his claim that it is the oldest boat ever to be discovered is also doubtful. The finders of the North Ferriby boats put their date

somewhere between 300 B.C. and A.D. 50 with a preference for the last 100 or 200 years of that period; whereas the Als (or Hjortspring) boat is believed to date from somewhere about 200 or 300 B.C. In either case the dating is very uncertain, but the Als boat must be at least a serious claimant to be the oldest so far discovered.

R. C. ANDERSON

THE KIRLANGITCH AND THE PINK

Since writing (1955, p. 78) to point out that Mr Stuart Bruce's *chilingo* could not be, as Mr Lyman suggested, the same as a *kirlangitch*, I have found a little more information about this latter type. At one time, when describing the operations of 1788 near Otchakov and Kinburn, I committed myself to the statement that a *kirlangitch* was something very like a galley. This seems to have been a mistake, justified to some extent by the way in which one account of the Turkish fleet described it as including '47 galleys, kirlangitches and gunboats', and by the fact that four kirlangitches built by the Russians for themselves after the fall of Otchakov are included by Veselago in his 'List of Russian Ships' under the heading 'Various ships of the Rowing Fleet'. These vessels measured roughly 72 ft. by 24½ ft.; their guns are not given.

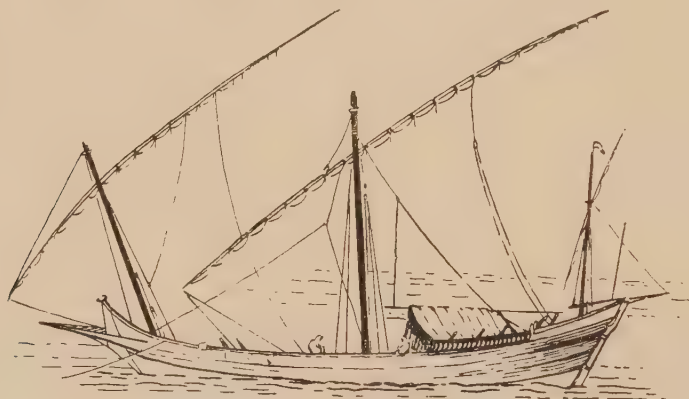


Fig. 1. *Pingue*, pour le transport des marchandises.
From Geroult du Pas, 'Les differens Batimens de la Mer Mediterranée'.

On the other hand, two other contemporary lists of the Turkish fleet speak of 'kirlangitches or pinks', the larger carrying six 12-prs and the smaller four 8-prs. This makes it clear that the *kirlangitch* was the Turkish equivalent of the *pinco* or *pinque*, so that we have to decide what that type was like. Jal describes it in almost the same words as the *chabek* or *xebec* and this fits in well with the references given by Mr Lyman, where the *kirlangitch* and the *xebec* are obviously closely related.

I have found four good representations of the Mediterranean *pinque* or *pinco*, all very similar as regards the hull, but varying in rig. These come from Gueroult du Pas (1710), from a book of water-colour drawings by a Maltese artist towards the end of the eighteenth century (see *M.M.*, 1919) and from Baugean's 'Collection de - - - Batimens - -', which I imagine must belong to the early years of the nineteenth. Three of these are now reproduced, and it will be seen that the first shows a purely lateen-rigged vessel and the second a square-rigged; while the third makes it clear that the two rigs were alternatives, the ship being described as 'sous son quarré' with the lateen yards struck.

The *pinque* of Gueroult du Pas is almost exactly like the *tartane* shown immediately above it, except that it has a third mast, a mizzen stepped very far aft, and this mizzen seems to have

remained an essential feature of the type. Jal agrees that the *pinque* had the same beak as the *tartane*, but gives it also the same long projecting poop as the *xebec*. In this he was probably wrong; certainly nothing of the sort appears in any of the four representations that I have mentioned.

None of them shows any sign of oars. Perhaps that is where the *kirlangitch* differed from the *pinque*; this would at least explain the Russian tendency to class her with the galleys.

R. C. ANDERSON

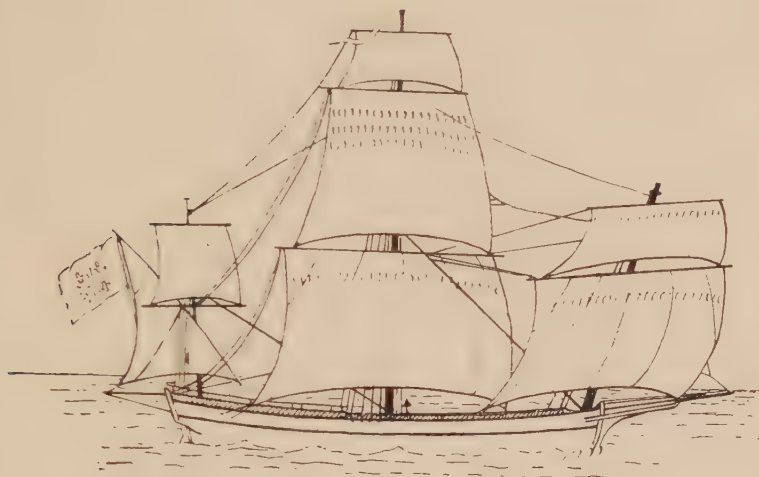


Fig. 2. Pinco Gerosolimitano stretto al vento.
From a water-colour drawing by a Maltese artist.



Fig. 3. Pinque Genoïse...sous son quarré.
From Baugean, 'Collection...de Batimens...'.
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AMERICAN ESCAPES FROM BRITISH NAVAL PRISONS DURING THE WAR OF INDEPENDENCE

The American seamen imprisoned in Britain during the War of Independence have commonly been thought remarkably ingenious, daring and successful in their attempts to escape. Indeed, they created for the Americans their reputation of being unusually elusive prisoners of war. The evidence in British archives, however, suggests that this reputation was not then wholly deserved. While it is true, for example, that in 1780 over a third of the Americans imprisoned in Britain escaped,¹ this very high rate was not simply the result of their superior shrewdness or enterprise.

Breaking out from a British naval prison was always easy in the eighteenth century, since the Admiralty relied upon guards and not buildings for security. It was particularly easy for Americans in the War of Independence. In the first place, two specially appointed prisons were reserved for them, Forton at Portsmouth and Mill at Plymouth, and neither of these was structurally at all secure. Indeed Forton, a former naval hospital, was quite unfitted for use as a prison.² Yet the soldiers on guard were commonly too few, incompetent and corrupt. Until the militia was called out in March 1778 guards of any sort were in very short supply, and it was too often true of those who were available that 'from various infirmities, natural inability and even an incorrigible propensity to Drunkenness' they could not 'be deemed fit in any respect for the Duty or trust of such a Guard'.³ To make matters worse, they had no orders to fire on American prisoners who attempted to escape. Americans were legally not prisoners of war, but were committed to prison by a magistrate on a charge of treason or piracy,⁴ and the Law Officers, although consulted, apparently never gave a ruling on the question of the legality of firing on such prisoners.⁵ The Americans of course soon discovered their immunity.⁶ Moreover, they were little affected by either close confinement on half rations or loss of turn to be exchanged, the two punishments relied upon to restrain the unruly. For their comrades usually smuggled extra food in to them, so that they fed at least as well as usual;⁷ and exchanges of Americans took place for less than a year, between April 1779 and March 1780. American prisoners therefore had little or nothing to lose by attempting to escape, while at the same time they had an unusually good chance of succeeding. Their common language and customs often enabled them to get on friendly terms with the guards and turnkeys, and so to secure at least their passive assistance. More important, they were far

1 The figures are 118 out of about 300 (R. Livesey, *Charles Herbert: A Relic of the Revolution* (Newburyport, Mass., 1847), p. 258). The escape rate of one in seven for the first eighteen months in which Mill, the stronger of the two prisons for Americans, was in use (P.R.O., Ad(miralty), 98/13/141, Sick and Hurt Commissioners to Philip Stephens (Secretary to the Admiralty), 22 November 1780) was thus comparatively low.

2 Eleven men escaped from Forton only a few days after it was put into use, and thereafter escapes from it were very frequent. The Commissioners responsible for prisoners of war made the buildings slightly more compact, but they continued to believe that all must depend on the vigilance and honesty of the guard (Ad. 98/11/116-7, Sick and Hurt Commissioners to Stephens, 30 June 1777).

3 Ad. 98/11/140, Sick and Hurt Commissioners to Stephens, 12 November 1777. Marines guarded Forton for a few months early in 1777.

4 The legal position of Americans is more fully examined in Olive Anderson, 'The treatment of prisoners of war in Britain during the American War of Independence', forthcoming in the *Bulletin of the Institute of Historical Research*.

5 Ad. 1/4328, Barrington (Secretary at War) to Stephens, 15 July 1777 and endorsement, Ad. 98/11/201. Sick and Hurt Commissioners to Stephens, 15 June 1778 and Ad. 3/91. Admiralty Minute of 20 January 1780.

6 Livesey, *op. cit.* p. 136.

7 For example, Livesey, *op. cit.* p. 78. I give no references on the matter of exchange, since I hope to discuss this question fully on another occasion.

more often in a position to offer bribes than the ordinary prisoner of war. Parole was not allowed to Americans whatever their rank, and therefore American officers were confined in naval prisons as though they were common seamen. Naturally they had more resources than their men, and escaped with little difficulty thanks to their 'friends and money', as their men enviously complained.¹ But even ordinary American seamen were able far more often than their European counterparts to get money from friends or connexions, or from charitable persons or English sympathizers,² and this helped them greatly not only in actually breaking out of prison, but in achieving what was usually much more difficult, namely, getting out of the country altogether.

Indeed, when all the circumstances are taken into account,³ the large number of Americans who avoided recapture is quite as striking as the number who broke out. Yet here again they enjoyed peculiar advantages, not only over money and language, but also over outside help and shipping to the Continent. Many Whiggish merchants and clergymen, as well as publicans and seafaring men, regularly gave valuable shelter and practical help, so much so that for some Americans at least being 'on the run' became a not unpleasant experience.⁴ But in any case since Americans were imprisoned in the two great ports of Portsmouth and Plymouth, it was comparatively easy for them either to lie low or to find a boat in which to slip across the Channel. Altogether then, the Lieutenant-Governor of Plymouth was perfectly right to urge upon the Admiralty in 1777 that 'the confinement of these American prisoners requires infinitely more care and difficulty, than the French and Spanish prisoners did in the last war'.⁵ French and Spanish prisoners who escaped were often brought back, Americans rarely—unless they wished to be.

This brings me to my last point. It is clear that many American break-outs were collusive shams prompted by the very large reward offered for the recapture of an American prisoner, namely, £5 (as against 10s. for French, Spanish and Dutch prisoners of war), together with repayment of expenses.⁶ Such a sum amounted to an incentive to connivance and often to collusion, even when it had to be shared with a sentinel or turnkey as well as between the prisoner and his captor. The Commissioners responsible for prisoners of war perhaps exaggerated the number of collusive escapes in order to minimize their own shortcomings; but even so it is difficult to justify the Admiralty's failure to reduce this £5 reward until Shelburne's peace negotiations were in full swing and all the Americans about to sail for home.⁷ Even in April 1782, when a general release was imminent, large numbers of Americans continued to escape, especially from the notorious

1 Livesey, *op. cit.* p. 199. Cf. the adventures of Joshua Barney described in *A Memoir of the Late Commodore Joshua Barney*, ed. Mary Barney (Boston, 1832), 1, 89–99.

2 For example, Sam Cutler, clerk to the commander of the privateer brig *Dalton*, and his friend Morris received £77 between them to defray the expenses of their escape. Benjamin West the painter, who was Morris's uncle, contributed six guineas. *Journal of Samuel Cutler, New England Historical and Genealogical Register*, 1878, p. 11. Cf. Ad. 1/4328, Barrington to Stephens, 19 September 1778.

3 In particular, that very many Americans who were recaptured wished to be so.

4 Cf. Barney, *loc. cit.*, and Cutler, *loc. cit.* S(tate) P(apers) 42/51, Lords Commissioners of the Admiralty to Suffolk, 21 November 1777 and enclosure, *ibid.* 25 December 1777 and enclosure Ad. 98/11/467, Sick and Hurt Commissioners to Stephens, 22 February 1779 and Ad. 98/12/36, the same to the same, 2 June 1779. Those few Americans who were imprisoned at Kinsale in Ireland were similarly often able to seize vessels and cross to France 'by the support of evil minded people who abound at Cork', (H(ome) O(ffice) 28/2/140, Stephens to Nepean (Under-Secretary of State), 4 June 1782 and enclosures). Many of these Americans succeeded in passing themselves off as sailors working on transports (Ad. 3/95, Admiralty Minute of 5 June 1782).

5 Blackett (Lieutenant-Governor of Plymouth) to the Lords Commissioners of the Admiralty, 21 November 1777, enclosed in S.P. 42/51, Lords Commissioners of the Admiralty to Suffolk, 23 November 1777.

6 Ad. 3/82m Admiralty Minute of 10 July 1777.

7 Ad. 3/95, Admiralty Minute of 29 April 1782.

Forton, 'and are so retaken as to leave it a matter of no doubt that it is done by collusion, and that they share the reward'.¹

It is indisputable that as a class American seamen were more energetic and ingenious than European seamen, and this is demonstrated by their attempts to escape as by other aspects of their behaviour as prisoners.² But it is also clear that their attempts were not always prompted by a desire for freedom, and that even when they were, they were prompted by a number of peculiarly favourable circumstances. Not every American seaman who broke out genuinely wished to escape; and it is fair to remember that for those who did, escape was much easier and much more likely to be successful and worthwhile, than for European prisoners of war in Britain in the same period.

OLIVE ANDERSON

OLD NAVAL GUN-CARRIAGES

With reference to *M.M.* (November 1952, and August 1953): the earliest representations of English truck gun-carriages appear to be those in: *Fragments of English Shipwrightry late Sixteenth Century in the Pepysian Library*. Facsimiles are displayed, I believe, in the Science Museum, South Kensington, reproductions of them certainly are obtainable from that Museum. Readers of this *Journal* will find two of the fragments reproduced on a reduced scale on pls. 4(b) and 6 in *M.M.* (April 1949). I should point out that 'Fig. 1. *English Culverins of 1542 and 1590*', in the same issue is a redrawing of the Science Museum drawings of these guns which, it was found, were not to scale. Those which the present writer re-drew for the *M.M.* are to scale, the dimensions being taken from those given on the Science Museum drawings. This point is mentioned as in any reconstruction of Elizabethan truck gun-carriages it will be important.

Truck gun-carriages of 1620-23 are illustrated on the title-page of Mainwaring's MS.: *An Abstract and Exposition of all things pertayning to the Practick of Navigation*. (Library of the late C. C. Scott, Esq., now loaned to the Institution of Naval Architects). This was reproduced as the frontispiece of *The Life and Works of Sir Henry Mainwaring, Vol. II*. Navy Records Society, 1922. These gun-carriages had four trucks. The front pair were considerably larger than the back pair. According to Mainwaring's MS. these trucks were 'little wooden wheels (being made without any spokes)'.

As he pointed out (under 'Carriages') the Spaniards used 'the other' kind of carriage, i.e. a land gun-carriage, in their shipping. An example of a Spanish gun-carriage in a ship of 1535 is to be seen in the *Tunis Tapestries: Capture of Goletta (La Goleta)*, 1535 (*M.M. April* 1949, Pl. 12) and an example of a Spanish gun-carriage in a Spanish ship (galleas) of 1583-90 in the *Frescoes in the Sala de Batallas, Escorial Palace, Madrid*, by Nicolas Granello (*M.M. April* 1949, pl. 10).

To the best of the writer's recollection Furtenbach's great work on naval architecture contains at least one illustration, and possibly more, of a Dutch ship of the first half of the seventeenth century complete with guns mounted in truck gun-carriages. The writer regrets that at the moment he is unable to provide the full title and date of publication of the work by Furtenbach referred to, or to specify the characteristics of these Dutch gun-carriages.

D. W. WATERS

1 Ad. 98/14/141, Sick and Hurt Commissioners to Stephens, 12 April 1782. One American was retaken for the fifteenth time in February 1782, having thus cost the government at least £75 by his escapes (Ad. 98/14/80, Sick and Hurt Commissioners to Stephens, 6 February 1782). On collusive escapes see also Ad. 98/13/134, Sick and Hurt Commissioners to Stephens, 14 November 1780, Ad. 98/13/136-141, the same to the same, 22 November 1780 and Ad. 98/13/148, the same to the same, 5 December 1780.

2 Their most spectacular mass escape was on the night of 28 December 1778 when 108 men escaped from Mill prison. After this the turnkeys were ordered to search prisoners for tunnelled earth, sentinels were sometimes locked in with them at night, and they were kept outside as much as possible during the day. Nevertheless, they continued to escape in large numbers, and most often by tunnelling. On the quality of American seamen, cf. R. Pares, 'The Manning of the Navy in the West Indies, 1702-63', *Trans. Roy. Hist. Soc.* xx (4th ser., 1937), p. 45.

THE WRECK OF THE *HALSEWELL*, 1786

In the November 1954 issue of *The Mariner's Mirror* Mr E. W. Bovill expresses the opinion that Sir J. G. Dalyell's 'usually accepted' narrative of the above wreck cannot be regarded as reliable owing to the chronicler's very inadequate knowledge of the sea. Mr Bovill arrives at this conclusion because he considers that Captain Pierce's conduct, as described in the narrative, was most unseamanlike.

Mr Bovill would not have formed this opinion of Dalyell's narrative if he had been aware that in 1786 an eighty-two page pamphlet was published under the title 'A circumstantial narrative of the loss of the *Halsewell* (East-Indiaman), Capt. Richard Pierce, which was unfortunately wrecked at Seacombe in the Isle of Purbeck, on the coast of Dorsetshire, on the morning of Friday the 6th of January 1786, compiled from the communications and under the authorities of Mr Henry Meriton and Mr John Rogers, the two chief officers who happily escaped the dreadful catastrophe' and that Dalyell merely edited this original and contemporary account of the wreck. This account is prefaced by the following statement signed by Meriton and Rogers: 'The circumstances of this narrative were communicated to the Editor by us; and the whole account as far as it comes within the reach of our knowledge is strictly true.'

A comparison of the above pamphlet with Dalyell's narrative discloses that, although he pruned the original account very rigorously in certain respects, he adhered so closely to the text of that portion of the original account that related the happening from the time the *Halsewell* fell down to Gravesend until the survivors of the wreck were rescued that his version is almost a verbatim copy of the original. Under these circumstances Dalyell's narrative must be regarded as having been indirectly but positively verified by two experienced seamen of high standing in their profession with first-hand knowledge of the facts.

Mr Bovill writes: 'It is therefore difficult to understand why Captain Pierce should have cut his cables and thus lost his best anchor, a measure so desperate that it would not have been taken except in an extremity such as had not yet arisen.' (The anchor lost was of course the best bower anchor—a distinction with a difference.) I suggest that an extremity justifying Captain Pierce's action had arisen. On the preceding evening the ship 'was *obliged* to anchor at nine o'clock in eighteen fathom water'. This action must have been necessary because the ship being then close in shore in tidal waters, the very thick weather and falling snow destroying visibility, and the baffling wind necessitating frequent changes of the ship's course it was impossible to fix the position of the ship with sufficient accuracy to remain underway without grave risk. In other words, the ship was considered to be in at least undesirable even if not dangerous proximity to the land or outlying dangers.

The strong gale from the east-north-east came on at four o'clock in the morning and the ship drove. As the courses had not been furled the ship would drive at a fast rate in the general direction of the shore, and it was therefore imperative that the ship should be got under command without delay. This could be achieved only by weighing the anchor or cutting the cable. Meriton and Rogers state that 'they were *obliged* to cut their cables' and I consider that this must be accepted as *prima facie* evidence that it was impossible to weigh the anchor. In 1786 the great majority of merchant ships worked their anchors by means of a primitive windlass. Men-of-war with their large crews used the capstan as, given a sufficient number of hands, it was more efficient than the windlass. Whichever method was employed the weighing of the anchor was, even under favourable conditions, a slow and laborious operation, whilst under adverse circumstances it could not be performed at all. Perusal of pages 137 to 142 of William Hutchinson's *A Treatise on Naval Architecture*, 1794, will support the above remarks, and it is also worthy of note that in the twelfth edition of Nicholl's *Seamanship and Viva Voce Guide*, 1922, the instructions given on page 388 for getting 'under way with land or a shoal astern; wind ahead and blowing strong' provide for the cable being slipped instead of the anchor being weighed.

The next action of Captain Pierce which Mr Bovill considers to be unseamanlike was the cutting away of the mizen-mast, but again I consider that Mr Bovill's criticism is ill-founded. The

original narrative states that two hours before the violent southerly gale arose the wind freshened from the South and 'they reefed such sails as were judged necessary'. As the next mention of any reduction of sail is the attempt to furl the main-topsail and the mainsail I think it can safely be assumed that all the sails on the mizen-mast had been furled and that the ship was carrying reefed fore and main topsails, fore and main courses and the appropriate headsails. This disposition of sail suggests that the ship was carrying excessive weather helm—a suggestion that is supported by the difficulty in getting the ship to wear. Although the furling of the main-topsail and mainsail would ease the ship, I consider that this order was given in the expectation that the reduction of sail would reduce the weather helm and facilitate the wearing of the ship. The wording of the original narrative 'they endeavoured to wear the ship, but without success, and judging it necessary to cut away the mizen-mast it was immediately done' implies not only that the necessity of doing this was carefully considered but also that all other means of assisting the ship to wear such as sending down the yards on the mizen-mast, striking the mizen topmast and mizen top-gallant mast and veering away from the lee quarter a hawser with a spar or other drag attached thereto had been tried without success. Mr Bovill contends that the cutting away of the mizen-mast deprived the ship of her manoeuvring power, but he fails to take into consideration the fact that the ship had already lost her power to manoeuvre and would not answer her helm. This was probably due to the water in the hold putting the ship down by the head. Under these circumstances the expedient of cutting away the mizen-mast was a time-honoured one recommended in Falconer's *Marine Dictionary* under the heading Veer, and still recommended in the 1855 edition of Brady's *Kedge Anchor*, on page 170. Although the eighteenth-century seamen were not aware of it this expedient had a sound scientific basis as it reduced the length of the coupling lever between the centre of lateral resistance of the hull and the centre of effort of the sail-plan and diminished the tendency of the ship to fly up in to the wind. This is another fact that Mr Bovill had not taken into consideration.

As regards the cutting away of the mainmast, Mr Bovill assumes that this was done to lighten the ship and considers that the same result could have been achieved by jettisoning a few guns. Here again Mr Bovill has fallen into error, as the cutting away of the mainmast was only a further and logical application of the principle of naval architecture previously mentioned. The seamen knew nothing of the principle, but they knew from experience that when it was a choice between foundering or getting the ship before the wind and the ship would not wear, then the mizen-mast and, if necessary, the mainmast must go. In support of this contention I again cite Falconer's *Marine Dictionary* under the heading Veer and would also recommend perusal of Barlow's *Journal*, Vol. 1, page 195 *et seq.* and a study of the illustration on page 196.

As this note is already very long I refrain from making any detailed comment on Mr Bovill's other conclusions apart from suggesting: (a) that the decision regarding the use of the long-boat was prompted by a laudable desire to provide for the safety of the ladies; and (b) that the gathering of the captain and his officers in the round-house may have been for the purpose of preventing the crew gaining access to the spirit-room and molesting the ladies.

Mr Bovill has a very poor opinion of the moral and ethical standards of the foremast hands in the East-Indiamen (*vide M.M.*, May 1954, page 125). The behaviour of the crews of British ships when wrecked was trenchantly criticized by Captain E. P. Brenton, R.N., when giving evidence before the Select Committee on Shipwrecks in 1836. Captain Pierce may have had good reason to mistrust his crew.

In view of Mr Bovill's interest in the Larkins family I am pleased to be able to inform him that in the list of the officers of the *Halsewell*, which is printed in the 1786 pamphlet, William Larkins is named as the fifth mate.

ALLAN E. BAX

CAPTAIN FAGG OF FOLKESTONE

In the notes on the Folkestone privateers, published in the February issue of *The Mariner's Mirror*, a report is given of the loss of a cutter, commanded by Captain George Fagg, on passage from Ostend to the Yorkshire coast in 1794. This must be that same Captain Fagg, who commanded

the privateer *Buck*, a cutter of twenty-four nine-pounder guns, in 1779 and played a brief but dramatic part in the siege of Gibraltar.

Samuel Ancell writes of Fagg's arrival at Gibraltar on 14 November in his journal of the siege: 'Wind N.W. This morning we were led to believe that our fleet was near at hand. The Spanish watch-towers hung out signal-colours, and the battery at Cabritta Point fired a gun for their cruisers to get under weigh. A privateer was soon discovered standing for the bay, under all the sail she could croud; the gun boats bore down upon, and fired briskly into her, which she returned as spiritedly: two frigates having slipped anchor stretched across from Cabritta to intercept her; having got within long gun shot they fired two or three broadsides, the cutter then tacked and stood for the Barbary shore, the frigates followed, and soon drove to leeward; she then tacked and stood again for the garrison, when a third frigate and a xebec pushed out, and likewise dropped to leeward, while the cutter kept her course; Admiral Barcello then hove too under Cabritta, with an intent to keep the windward gage—the bravadoing, blustering, and vigilant Barcello, in the *St Jean Baptiste* of 70 guns, bore down upon her, and having got within half cannon shot, poured into her his whole broadside, which the cutter returned; he then made signals for the gun-boats and galleys to board, but when they had rowed pretty near, the hardy crew gave them such a liberal distribution, that they were compelled to retire. The Spanish Admiral having fallen to leeward, endeavoured to work up again, but not being able, on account of the fresh breeze at N.W. was, to his no small mortification, under the necessity of going to the eastward, with the remainder of his cruisers. She proves to be the *Buck* of Folkestone, Captain Fagg, in 19 days from England. On his dropping anchor at New Mole, the numerous spectators from the batteries and walls, gave him three cheers, and the General on his landing, paid him the highest commendation for his bravery and manoeuvres. What news he brings, is not made public, excepting that we are not to expect a fleet yet.

'I cannot close this account without informing you, that some leagues to westward he was chased by three cutters, and finding they were English, he lay too. They asked him where he was bound, and answering to Gibraltar, they persuaded him to return, adding it was impossible to get in safe. In a jocular strain, he asked if there was room for a coach and six to get in, which being answered in the affirmative, he rolled his quid (which was none of the smallest) two or three times, and with an audible oath, swore he would get in if Belzebub himself gave chase.'

Another account of the action is given in the John Drinkwater journal: 'The 14th, arrived the *Buck* cutter privateer, Captain Fagg, carrying twenty-four nine-pounders. The abilities and bravery of a British Sailor were so eminently conspicuous in the Captain's conduct previous to his arrival, that even our enemies could not help bestowing on him the encomiums to which his merit entitled him. About eight in the morning, the privateer was discovered in the Gut, with a westerly breeze. The usual signal for seeing an enemy was made by the Spaniards at Cabrita Point; and Admiral Barcelo, with a ship of the line, one of fifty guns, a frigate of forty, two xebeques, a settee of fourteen guns, with half-gallies, &c. &c. to the number of twenty-one, got under way to intercept her. On the first alarm a xebeque at anchor off Cabrita had weighed, and stood out into the Straits: the cutter nevertheless continued her course; but observing the whole Spanish squadron turning the point, she suddenly tacked, and stood towards the Barbary shore: the xebeques, frigate, and lighter vessels pursued, but were carried down to leeward by the irresistible rapidity of the current, whilst the cutter in a great degree maintained her station. As it may appear very extraordinary to readers unacquainted with nautical affairs, that the privateer should not be equally affected by the current, it may be necessary to inform them, that a cutter, or any vessel rigged in the same manner, from the formation of her sails can go some points nearer the wind than a square-rigged vessel; which advantage, on this occasion, enabled Captain Fagg to turn better to windward, by stemming the current, whilst the Spaniards, by opposing their broadsides, were carried away to the eastward. But, to resume the narrative, Barcelo, who had his flag on board the seventy-four, was the last in the chase, and, perceiving his squadron driving to leeward, prudently returned to the Point, to be in readiness to intercept her in the Bay. The fifty-gun ship also laid her head to the current, and keeping that position, drove very little in comparison with her friends. Affairs were thus situated when Captain Fagg, persuaded that the danger was over, boldly steered for the

garrison. The fifty-gun ship endeavoured to cut her off from the eastward, but was compelled to retire by our batteries at Europa: and Barcelo got under way to intercept her from the Point; but finding his efforts ineffectual, he was obliged to haul his wind, and giving her two irregular broadsides, of grape and round, followed his unsuccessful squadron to the eastward. The Cutter insultingly returned the Spanish Admiral's fire with her stern-chace, and soon after anchored under our guns.

'The expectations of the troops and inhabitants, who were spectators of the action, had been raised to the highest pitch: few doubted that she was a King's vessel; and as no intelligence had been received from England for many weeks, their flattering fancies painted her the messenger of good news; probably, the forerunner of a fleet to their relief. But what was their despondency and disappointment, when they were informed that she was only a privateer, had been a considerable time at sea, and put in for provisions? Though our condition in the victualling-office became weekly more and more serious, yet the Governor generously promised Captain Fagg assistance. What indeed could be refused to a man by whose manoeuvres the Port was once more open, and the Bay and Straits again under the command of a British Admiral? Only two or three half-gallies returned to Cabrita Point; the rest of the squadron were driven far to leeward of the rock.'

The *Buck* remained under the guns of Gibraltar for more than a month. Then, Drinkwater wrote, 'On the 20th, the *Buck*, having refitted, sailed on a cruise to the eastward. We were afterwards informed that she unfortunately fell in with a French frigate, which, after a few broadsides, captured the *Buck*; but before she could be got into port, she sunk from the damage received in the action.'

Presumably Captain Fagg returned to Folkestone and was given a new cutter, possibly by William Major and Phineas Jacob, the owners of the *Buck*.

T. A. G. POCKOCK

SAILORS' BAPTISM

The article on Sailors' Baptism reminds me that, in a ship in which I served in the first World war, it was customary to christen the Junior Midshipmen shortly after they first joined.

The ceremony was after this fashion and took place on a Gun Room Guest Night to which a large number of Wardroom officers were invited.

After dinner, the young gentlemen to be initiated, each carrying one of the large, hard ship's biscuits of the day, were summoned to stand before the Sub. of the Mess. Each in turn would then hand the Sub. his biscuit and kneel in front of him. The Sub. would place the biscuit on the kneeling midshipman's head and then all the midshipmen together would sing the following verse to the tune of a well-known hymn (A. & M.):

p. Lord of power and Lord of might
At this festival tonight
Ere we our careers begin
Free from sorrow, free from sin
Humbly kneel before thy throne
Till the hand of grace comes down

(Here the Sub. brought his hand down heavily on the biscuit, breaking it over the midshipman's head.)

ff. Alleluia let us sing
Hail to this our christening.

I do not know whether some form of sea baptism at the start of an officer's career was an old Naval custom or whether it was just a stunt in this particular ship. It would be interesting to know whether there were other variations of the ceremony and whether the custom still survives.

A. F. C. LAYARD

NOTE ON THE BRIDPORT PAPERS

Having recently had occasion to examine the papers of Alexander Hood, 1st Viscount Bridport (British Museum Add. MSS. 35191-35202) I have been struck by the scanty use made of them by eighteenth-century naval historians. The only exception to this seems to be in connexion with the Spithead Mutiny of 1797, and even then I have found no reference in print to the outbreak in Sir John Warren's frigate squadron based on Falmouth, of which an account is given in the Bridport Papers.

Yet these documents do contain much that is of interest. Wide vistas of speculation are, for instance, opened up by the discovery that James Pitt, the youngest of Chatham's sons, began his naval career under the captaincy of Alexander Hood, and that the Pitt family remained his very good—one is at times tempted to think, his only—friends. Equally significant may be the fact that in 1779 Lady Hester Chatham thought it expedient to remove James from the tutelage of Hood, then under the shadow of the Keppel Court Martial, to that of Howe. Here, one feels, may lie the reasons for the Government's long tolerance of Bridport's faulty handling of the Channel Fleet, and the roots of his long and bitter quarrel with Howe, of which interesting traces are to be found elsewhere in the Papers.

Other items worthy of note are a series of letters from Samuel Hood at the time of his dismissal from the Mediterranean command in 1795, and a rather surprising hint that Bridport was subsequently offered that post by Spencer; documents relating to a minor court-martial on Alexander Hood in 1759; his efforts to secure the succession of Gardner to his command in 1800; and a string of lamentations from his friends on the rigours of St Vincent's régime.

The Bridport Papers also offer an interesting supplement to the material in the P.R.O. on such matters as the epidemic of scurvy in the fleet off Quiberon in 1795 and its effects on Bridport's unwillingness to remain at sea, the confused events off the Irish coast in October 1798, and the operations of our frigates around Brest, not to mention the originals of the notorious 'Black Joke' despatches, and evidence of Spencer's timidity regarding the exposure of the Fleet to winter gales—a timidity quite as great as that usually attributed to Howe and Bridport.

I might add that volume 1 of the Papers has nothing to do with Bridport, but contains Nelson's Diary for parts of May, June and July 1803.

R. C. SAXBY

JOHN BLANKETT AND THE RUSSIAN NAVY IN 1774

The growth of Russian naval strength has been a matter of considerable interest to British observers since the time of Peter the Great. To a remarkable degree that development was dependent upon the leadership and technical knowledge of British ship-builders of the seventeenth century and sea officers in the eighteenth century. Despite earlier quarrels the reign of Catherine II seemed to presage close relations between the two countries. The Treaty of 1766 provided security for Anglo-Russian commerce,¹ and the movement of the Russian fleet from the Baltic to the Mediterranean in 1769, with the open assistance of the British government, indicated the existence of an Anglo-Russian naval understanding that was a real check against the recovery of the Bourbon powers upon the high seas.² Britons like Samuel Greig and John Elphinston won great honour in the Russian service, and the prospects of action in the Czarina's fleet attracted the attention of more than a few young lieutenants on half-pay between wars. [See R. C. Anderson, *British and American officers in Russian Navy*, M.M. 1947.]

¹ *A Collection of all the Treaties...* (London: J. Almon, 1772), Vol. II, pp. 309 ff.

² See M. S. Anderson, 'Great Britain and the Russian Fleet, 1769-1770', *Slavonic and East European Review*, Vol. XXXI (1952), pp. 148 ff., and 'Great Britain and the Russo-Turkish War of 1768-74', *English Historical Review*, Vol. LXIX (1954), pp. 39 ff.

Among those seamen who became midshipmen in Anson's day and admirals under St Vincent was John Blankett. His career led from Louisbourg and Quebec in the Seven Years War to the reduction of the Cape of Good Hope in 1795, and on to the Indian Ocean and Red Sea where flag promotion and death reached him simultaneously in 1801. Blankett possessed remarkable literary and linguistic abilities and took an active interest in the extension of the British Empire through the acquisition of new bases controlling the old trade routes. Neither inactivity nor the routine of the peace-time establishment appealed to his temperament; throughout his life he sought to create opportunities for the advancement of both his country and himself, and though fame touched him lightly, he contributed directly to the long struggle that left Britain mistress of the seas for a century.¹

One of John Blankett's most interesting departures from regular naval life came fairly early in his career. Some time after the Peace of Paris (1763), he attempted to interest the Admiralty in an investigation of Russian knowledge of Asiatic waters. An anonymous writer in the *Gentleman's Magazine*, who has been tentatively identified as Captain Robert Tomlinson,² declared that Blankett 'was encouraged to proceed to Russia, to prosecute his enquiries into the Russian discoveries; he remained at the Empress's court a considerable time, and was much noticed there'.³

Unfortunately the date of Blankett's journey has nowhere been clearly stated. His memorialist in the *Gentleman's Magazine* claimed to have known him for 'more than 30 years', and seems to suggest that the visit fell between 1763 and 1770. Professor J. K. Laughton, writing in the *Dictionary of National Biography*, questioned the general veracity of this authority, but accepted the account of the Russian episode. Evidence is exceedingly sparse, but a correction may now be made on the basis of a manuscript found among the Shelburne Papers at the William L. Clements Library, Ann Arbor, Michigan.⁴

The preceding years of Blankett's career remain obscure, but in 1770 he was as yet no more than a very junior lieutenant aboard the *Albion*.⁵ The Russian fleet had lately passed into the Mediterranean for action against the Turk, and the British were arming in prospect of war against Spain over the Falkland Islands. War and promotion seemed imminent. Blankett's hopes were dashed, however, and December 1771 found him in London regretting that 'everything appears truly pacific'.⁶ By 1772 he was utterly discouraged by persistent rumours of a reduction of the fleet. 'Promotion is now as distant as at the beginning of the Peace', he complained to a more fortunate friend. 'The hackneyed word Economy is used to stop the mouth of all applications'.⁷ The combination of inactivity and political discouragement (for although Blankett maintained a considerable 'interest' with statesmen like Shelburne, his friends were unable to assist him) doubtless spurred him to try his fortune abroad. Scientific curiosity may have provided something more than an excuse, but in any case, in the year 1774, John Blankett went to Russia.

Evidence of his visit and illustration of his observations is found in Blankett's letter to the Earl of Shelburne dated 25 December 1777. Once more Anglo-Russian relations were a matter of international concern. Sunk in the slough of American misfortune, Britons were grasping at any straw and seeing real enemies in every European capital. While rumours of Russian assistance floated through the diplomatic backwaters, wiser heads foresaw that conflicting maritime interests might easily produce embarrassing results. It was at this juncture that Blankett offered his views on the power of Russia to the lord of Bowood. His letter provides an interesting and penetrating

1 See C. C. Lloyd, *Keith Papers*, N.R.S. (1950), Vol. II.

2 J. G. Bullocke, *The Tomlinson Papers*, N.R.S. (1935), Vol. LXXIV p. 8.

3 *Gentleman's Magazine* (1802), Vol. LXXII, pp. 35-6.

4 Laughton's error in dating Blankett's Russian visit stems from an unfortunately literal reading of a badly phrased passage in the *Gentleman's Magazine* for which corroborating evidence was lacking. The writer is indebted to the Director of the William L. Clements Library for permission to reproduce portions of the letter which follow.

5 D. Bonner-Smith, *The Barrington Papers*, N.R.S. (1937), Vol. LXXVII, No. 1, pp. 421-2.

6 H.M.C., *Report on Manuscripts in Various Collections*, Vol. VI, p. 313.

7 *Ibid.* p. 314 (mis-dated 1774).

survey of Russian naval resources and some remarks upon the character of Russia that are not without merit to-day.¹

‘My Lord

[I] consider myself highly honored by the polite attention you have [s]hown me & take the liberty to say I consider myself as attached [to] your Lordship not only from principle but from inclination.

As the situation of our Political alliances may probably make [us] consider Russia as a very necessary Friend, I thought your Lordship would forgive my troubling you with some account of that Country which I collected when I was there in the year 1774.

And to speak first as a Sea Officer, I must premise that almost all those stores we were used in better times to take from America, we must now take from Russia, such as Pitch, Tar, Rosin, Turpentine, Tallow, Masts, Yards, Spars, Compass Timber, Fir timber & a variety of other articles used in Ship building. When it is said that Denmark & Sweden can supply those articles, it is true only in part. Sweden can export a great quantity of Pitch & Tar, but the connections of Sweden are too well known to place much dependence on a supply of Naval Stores from thence. We can only depend on Denmark for the Norway timber, some turpentine & Rosin. But we must owe our Naval existence to Russia for a supply of Hemp, Sail Cloth, Masts & some other articles which no other Country can furnish us. In this Consideration Russia becomes an ally of the first consequence.²

The Russian Navy consists of 35 Sail of the Line, 16 Frigates & 74 Gallies.³ Their Ships are built of Fir & Cazan Oak which is of a coarse Grain, open, Spongy, & does not last long. They have no regular caulking, but that service *when it is performed* is done by the Seamen on board. On an average one fourth part of their Navy is renewed every year. Their Gallies are well built, but I should much doubt their abilities to manage them from want of Experience.

As it has been a general received opinion that Russia would soon become a great Maritime power, I shall give my reasons for being of a contrary opinion.

1. They have no Russian Merchant Ships, the consequence of which is that they have no Seamen. Their mode of manning their Navy is to collect together a number of the common people, to make up the complement required, who being distributed in the Ships make the campaign in the Baltic for about six weeks & are then discharged, most of them going back to their own Country. Few of those who served in the Mediterranean are now to be found.

2. The general dislike the officers have to the Sea Service is another strong reason, which proceeds partly from their ignorance of their profession, & partly from the smallness of their pay which makes the Russian Navy by no means an eligible profession.

3. The tedious Equipment of their Fleet from the method of carrying on the Service. If a few Nails are wanting, a Memorial must be presented to the Admiralty college, which with references & answers takes up much time, & the forms of office which in all countries are tedious, are here lengthened out beyond Credibility.

4. The Presidents of their Marine departments, being totally ignorant of the business that depends on them, follow blindly their old establishment, being as much attached to their ancient Customs as they were to their beards.

5. From their Sea Ports being absolutely blocked up by the Frost, & useless for seven months in the Year. This added to the little encouragement given to Ship Builders & Artificers, the ill construction of their Ships, their neglect of them wh[en] built, their want of Seamen, the ignorance

¹ The MS. runs to eleven pages and includes a considerable amount of interesting but irrelevant material on civil administration, economy, and society which is here omitted.

² For a modern analysis of this point see R. G. Albion, *Forests and Sea Power* (Cambridge, Mass., 1926), pp. 283 ff.

³ William Coxe, *Travels into Poland, Russia, Sweden, and Denmark* (2nd ed., London, 1785), Vol. II, pp. 211–14 describes the Russian fleet in 1778 as consisting of 38 ships of the line, 15 frigates, 4 prams, and 108 galleys.

of their Officers & the general dislike attending the Sea Service, appear to me sufficient reasons to pronounce that Russia cannot in our times become formidable at Sea.

Sir Charles Knowles, who was perhaps the most complete Sea Officer this country ever knew,¹ was fully sensible of these disadvantages, & his endeavors to remedy them are proofs of his Genius, being extensive & comprehensive. He proposed to oblige Russia to export certain articles in their own bottoms, but as he knew that measure in its beginning would be slow and trifling, he proposed likewise a regulation of the interior Navigation of Russia, which being intersected by Rivers & Lakes, would admit of great improvement & furnish in some degree a nursery for Seamen till the first mode was arrived to an advanced state. The Empress was equal to the Idea but was too unsecure in her Government to attempt great improvements which are contrary to the inclinations of the People, her Policy being confined to playing off one party against another. However the admiral introduced a better mode of constructing their Ships, forming of Docks & putting their Arsenals in better order, but to have completed his designs required the power & severity of Peter the Great, to neither of which the Admiral was equal. Since he left Russia, they have fallen back to their old Establishment, so that only the public works, such as Docks, Wharfs & Storehouses remain of his improvements.

* * * * *

The taxes in Russia are levied by courts & Officers appointed & employed in Judicatory & other executive parts of Governments the number of which being few & the salaries small, & some considerable branches of the Revenue let on farm.... The Poll tax is entirely appropriated to the Army, Beer & Brandy to the Fleet.... The other taxes are appropriated to the support & payment of the Household & Civil list, & all other Officers not employed in the Fleet or Army. Thus the Poll Tax recruits the Fleet & Army.

* * * * *

In regard to the arts & Sciences, I may mention an Opinion [to] your Lordship I should not choose to hazard to a Man of [le]ss Penetration. I think we are mistaken when we speak [of] the rapid progress the Arts have made in Russia. When [a] Traveller arrives at Petersburg, he is told that all that large City was a morass, that it is built on Piles & he is naturally astonished at so great a work. He admires the Grandeurs & beauty of the buildings & wonders that a rude people should be capable of such elegant constructions. He forgets they had the plans & the Architect from their Neighbours. He goes to Court & is surprised at the Magnificence & Splendour of a people who lately were in a state of barbarity & admires the elegant dress & finery of those about him, who not long since wore their beards & a filthy cloak. He visits their Academy & finds professors eminent in all classes of Science, Cabinets of Natural History, Collections of all kinds arranged with the greatest order & exactness. All these things strike his mind forcibly & the contrast between this state of things & that of Barbarity makes him draw the conclusion rather too hastily that the Arts & Sciences have made a rapid progress.

But if he reflects coolly he will find that the Russians have contented themselves with Imitation. They have built palaces in imitation of those introduced by foreign Architects without knowing a single rule of Architecture. Public works have fell to pieces from an ignorance of the necessary proportions of building, & their whole Empire has not yet formed a Russian Architect.... & in their Ship Yards, where the most pains has been taken, they have still only the use of the hatchet. In their Model loft they have only a hatchet, a knife & a drill.

* * * * *

To account in some measure for the Russians not cultivating the Sciences, I shall mention one principle Obstacle, which is that the Nature of their Government does not incite to knowledge nor is learning of much use to them in the present state of affairs. There are no Harranges in

¹ Adm. Sir Charles Knowles (c. 1697-1777) after an active and controversial career in the British navy resigned and accepted command in the Russian navy 1770-1774, but served only in an administrative capacity.

their Senate, no Pleadings in their Courts of Justice, nor no Oratory from their Pulpits. The few Professors of Physic are foreigners & the Clergy are taken from the lowest of the people who are taught their ritual by heart & who are submissive to the will of their superiors. Most of the Artificers & Shop keepers & some of the lower kind of Merchants are slaves who in proportion to their business or abilities are taxed by their Masters.¹

I am sure I ought to apologise to your Lordship for taking the liberty of writing so lame an account to a person so much better informed. It is not from vanity or from a desire of being thought more capable than others to judge of the state of a Country that I have troubled your Lordship, but to throw out in a rough state such hints as I know are founded in truth, which your Lordship might improve upon at your leisure. In every Case I beg you to receive it as a mark of the respect with which I have the honor to be

Your Lordships
Most faithful
& obed^t Serv^t
J Blankett

Dec^r 25
1777

ROBERT R. REA

A THREE-MASTED ROMAN SHIP

Ever since Cecil Torr² published his *Ancient Ships* in 1895 it has been known that the Romans on occasion used a third mast on some of their vessels after about A.D. 50. To the best of my knowledge, no illustration of a three-masted Roman vessel has ever been reported in any of the periodicals devoted to nautical research.

When I visited Ostia, the ancient port of Rome, in September 1954, I spent considerable time examining and photographing a series of mosaics on the pavements of two sides of the Piazzale della Corporazioni. Upon this square faced seventy offices of commercial agents from all parts of the ancient world. I examined fourteen ships on these mosaics. Ten of these were in pairs, and three of these pairs had a lighthouse between the ships or in the centre of the design. Four ships were shown singly, and two of these were associated with lighthouses. Two lighthouses were shown without ships. At least four of the seven structures shown are definitely lighthouses, since flames are shown at their tops.

In one of the mosaics of paired ships and lighthouse there is a three-masted vessel with three square sails set. The foremast and foresail appear to be more substantial than the usual artemon and are set further aft. This difference in the location and size of the foresail is illustrated by the other ship in this particular mosaic which has an artemon, and with ships in other mosaics at Ostia. The mizen is smaller than the foresail, and all have the same square proportions.

Such a square-rigged vessel, with a mainmast and smaller foremast and mizen-mast, does not appear again until the middle of the fifteenth century when the three-masted ship with five and six sails appeared. This gradually evolved to the full-rigged ship. However, this Roman three-masted vessel does appear to be the direct ancestor of the medieval three-masted lateen-rigged galley which had this same mast arrangement. In the fifteenth century there were also three-masted lateeners with main-masts, mizen-masts, and jigger-masts. This type of three-masted ship can be traced back to at least the thirteenth century with a similar mast arrangement, and is excellently shown in two thirteenth-century Venetian mosaics.³

Usually when one is examining manuscripts, bas reliefs, or mosaics for the finer details, one prefers to work with the originals. The Ostia Corporazioni mosaics are one of the few exceptions to this rule. Apparently sometime after the mosaics were uncovered many were bodily

¹ Blankett's interpretation of the Russian character is quite typical. See *Coxe, Travels*, Vol. II, p. 108, and generally P. Putnam, ed. *Seven Britons in Imperial Russia* (Princeton, N.J., 1952).

² C. Torr, *Ancient Ships* (Cambridge University Press, 1895), p. 89.

³ F. Moll, *Das Schiff in der Bildenden Kunst* (Bonn, 1929), Plate B-X-b, Fig. 139; Plate B-X-e, Fig. 138.

removed and laid down again. Those that have been removed and replaced bear little resemblance to the originals in the details which are so important to the marine archaeologist.

Such is the case of the three-masted ship. The errors are too numerous to list completely, but a few will suffice. In the reconstruction, the lighthouse base has been doubled in height. On the three-masted vessel the following errors have been made: the mainsail has been made taller, the foresail overlaps the mainsail, the shape of the mizen and the mainsail has been changed, and numerous details have been added which are not at all evident on the original. The sketch appended here has been made from a photograph taken shortly after the mosaic was uncovered.

RICHARD LEBARON BOWEN JR.



Fig. 1. Three-masted Roman ship.

SENNEN COVE CRABBERS



Fig. 1. Sennen Cove Crabber.

In their day the Sennen Cove Crabbers were famous, at any rate in their own county of Cornwall, as being daring and very skilful fishermen and seamen. In fact they had to be, their calling took them among the rocks and tide rips of the dangerous Cornish Coasts and the knowledge they thus gained, on occasions, undoubtedly saved their boats from destruction and their own lives. At

times a crabber if caught out would shelter in a rock gully or even behind a large rock, in the sort of place that would appear suicidal to the uninitiated but which the Sennen man would know was all right in that particular combination of wind and sea. The boats were rarely larger than 20 feet on the keel, the reason for this was that the crew was only two, one man would haul the boat up to the string of Crab pots and lift while the other would take out the catch, rebait and drop the pots overboard again; to do all this with a larger boat would have been impossible for two men. The boats were usually carvel-built but one or two were clinker. The sails were the usual Cornish dipping lug for'd and standing lug on the mizen, but not so many years before the First World War this mizen was a small spritsail with the mast stepped right on the transom on the port side far enough over to clear the tiller. Towards the closing years of these fine little vessels, the mizen was brought considerably inboard and stepped at the after thwart. This enabled a much larger mizen sail to be used with the consequence too of altering the cut of the foresail, which instead of being rather low and square became a much higher cut sail considerably peaked up, taller and narrower. These boats were open boats not decked at all, beam about 7 feet 6 inches and 2 feet 9 inches from the top of the keel to the top of the gun'le. Sometimes they fished inside the Seven Stones, this was known as fishing 'In the Town', they also went over to the Scillies in the summer and fished from there. These boats no longer exist, though a few modern motor-boats still carry on the business of catching crabs.

H. O. HILL

THE NEWQUAY PILOT GIGS

A Century and a half ago

In the sheltered picturesque village of St Mawes, near Falmouth, there is a small cottage bearing a date-stone saying it was built in 1790.

When the Peters family were building this house they received an order for a six-oared pilot gig, to be used as a lifeboat on the North Cornwall coast. According to Mr Frank Peters, the present owner of the Polvarth yards, where nearly all the gigs were built, this order was completed in 1791 and marked the beginning of almost a century of building this type of craft.

These pilot gigs are known as such from the nature of their original work. Longer ago than anyone at Newquay can remember these six-oared gigs were used to pilot sailing vessels into harbour. They were built by small companies who provided the large coir mooring ropes for the vessels and the labour to unload the cargoes. They also raced for repair work and cargo sampling. Competition was keen, and on one occasion a gig-crew rowed almost to Lundy Island to pilot a schooner to Newquay. With the increase of coastal shipping the fight for work was not so necessary and the gigs gradually became racing craft, being eventually purchased by the Newquay Rowing Club.

The oldest of them is named *Newquay* and was built about 1820. Her lines were taken off by the late P. J. Oke for the Society for Nautical Research and are in the Science Museum at South Kensington. She is constructed, as are all the others, of Cornish elm, and despite her great age is often raced in very heavy seas. Last winter she was refitted in a Padstow boat-yard and the master shipwright has declared her to be quite sound in the planking and with only a slight softening of the keel. She is 30 feet long and 4 feet 11 inches beam.

The *Dove* was built about ten years later and to slightly finer lines as a boat to be faster than the *Newquay*. This was realized in some respects, as amongst older rowers the *Dove* is looked upon as being a faster craft in smooth water but inclined to push her nose into heavy seas and ship a great deal of water.

The *Treffry* was built about 110 years ago. An old man aged well over 80 in 1920 told me he remembered seeing the *Treffry* being brought to Newquay from the builder at St Mawes, she being rowed as far as Truro up the River Fal and then carried overland a distance of about 15 miles. The *Treffry* is slightly longer than the others, being 32 feet overall, and has proved to be an exceptional sea-boat. She will race in any heavy sea and come back with scarcely any water aboard. Locally she is regarded as the beauty of the fleet and in 1893 was taken some 22 miles by sea to

Hayle, further down the north Cornwall coast, to race and win the first prize. There is a gig in the Scillies called the *Shah* which has the same reputation there. This gig is still in fair condition at St Agnes in the Isles, and the Newquay Rowing Club would very much like to have her to preserve and care for. In fact, they have been promised an option on her if ever all her share holders can be persuaded to let her come to a good home. The *Shah* is like the Newquay gig *Treffry*, and as an old Isles of Scilly pilot puts it 'as fine as a needle, but will always lift in a heavy sea'.¹

The *Treffry* was once taken to Penzance by road from Hayle and was awarded the first prize without being put into the sea; the other crews present refused to race against such a fine and elegant boat.

Slippen was purchased from St Agnes in the Isles of Scilly. Her age is beyond the records. She rescued the three survivors of the seven-masted schooner, *Thomas W. Lawson*, of the U.S.A. which became a total loss at Scilly in 1907. *Slippen* was launched in heavy seas with each oar double banked—quoting from an eye witness 'at times she came backwards almost turning end over end in the huge seas'; *Slippen* also saved twenty-six lives from a French ship in 1925 which had gone ashore in a north-east gale. The crew of the *Slippen* were decorated by the French Government.

The fifth gig *Bonnet* was purchased from Tresco in the Isles of Scilly, and a man who held a share in her related to me 'that 80 years ago a pilot told him that when she was built one of the company suggested consulting the "old lady with the bonnet" who was supposed to have preternatural sight, so as to ensure luck in pilotage, and consequently, *Bonnet* was the gig's name'.

The last of the six is the *Golden Eagle* built in 1870 which was purchased from the island of Bryher in the Scillies, and only after great persuasion that she was going to a better home at Newquay would her owners part with her. If they could see her now, they would not regret their actions. The men of Bryher purchased her with 100 sovereigns received for salvage, hence her name *Golden Eagle*. These boats are jealously looked after at Newquay, their ordinary maintenance being done by the Club members.

An average crew will cover a mile in about 7½ minutes. The all-time record for this distance, held by a crew which rowed in 1928, is 6 minutes and 15 seconds. This crew practised for more than two months to beat their great rivals from Polruan, near Fowey, for the first and only time in history. The Fowey Harbour rowers I would acclaim as the finest in the world, they use a stroke seen nowhere else and appear to row with an effortless ease difficult to describe.

The Newquay crew used the gig *Dove*, and three of the crew were only 18 years old, the coxswain W. R. Coumbe, J. Reynolds and myself. The other members were W. E. Kennedy (stroke), W. Trebilcock, E. Hoare and W. J. Jenkin.

Recently, Mr Peters, of St Mawes, searched the very old part of his shed and discovered some fifty moulds which had been used to build pilot gigs, that have been despatched to all parts of the world, but chiefly to north Cornwall and the Isles of Scilly.

The Peters family were proud of their work, and Nicholas Peters kept in touch with all the gigs which were used in north Cornwall, and made frequent trips to the Isles of Scilly, usually in the yacht, *Sea Snake*, owned by a squire of St Mawes, Mr J. C. Kennerley.

On one occasion this yacht towed a gig to the Islands, none other than the famous *Czar*.

From the Builders' Yard

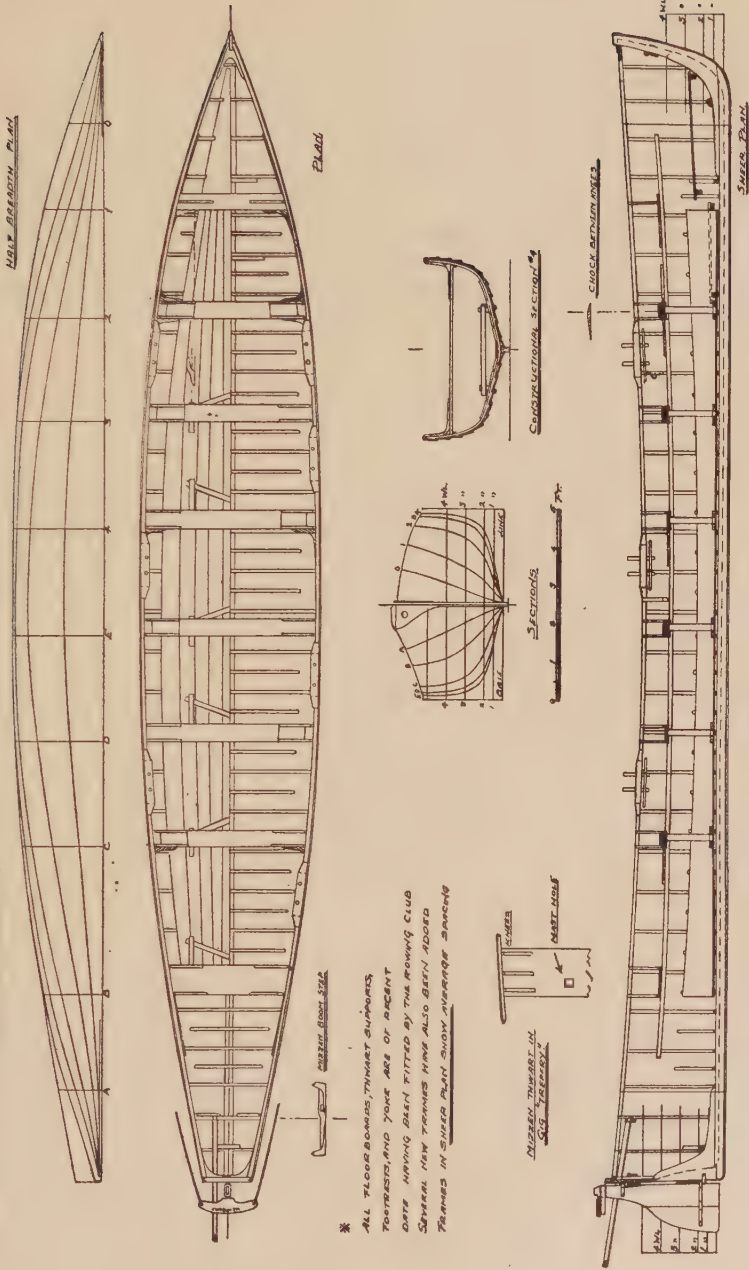
All the pilot gigs vary in length, usually between 28 and 32 feet, and since William Peters always insisted that no plank in them should have more than one scarf so consequently the length of the gig varied with the length of the tree used.

The gigs were built to weigh just less than seven hundredweight so that seven men could launch

¹ Since the foregoing was written the *Shah* has been bought by the Newquay Rowing Club, who have had her reconditioned, and she is now one of their fleet of racing gigs.

NEWQUAY PILOT GIG NEWQUAY

BUILT BY PETER FERROS OF ST. MARIES NEAR FALMOUTH ABOUT 1820.
 LOA 39' 11" X 6' 5 1/2" X 2' 0" DEPTH ABOVE KEEL 2' 3".
 FORMERLY USED FOR PILGRIMAGE WORK. (NOW OWNED BY THE
 NEWQUAY ROWING CLUB & USED FOR RACING. THERE ARE TWO OTHER
 GIGS, NAMELY THE "JOVE" 31' 1" & THE "TRINITY" 35' OVERALL LENGTH. ANOTHER
 SIMILAR GIG, THE "ZOE", WAS BURNED UP IN 1852. THESE GIGS WERE FORMERLY
 EQUIPPED WITH A DIPPING FORELUG & STANDING LUG MIZZEN.



* ALL FLOOR BOARDS, THIMBART STUPEARS,
 POSTERS, AND JOKE ARE OF RECENT
 DATE, HAVING BEEN FITTED BY THE ROWING CLUB.
 SEVERAL NEW THIMBARTS HAVE ALSO BEEN ADDED.
 THIMBARTS IN SILVER PLATE GUYD, MIZZEN, SACKING

Anglo-Saxon Co. Ltd. 1912
FALMOUTH, CORNWALL

them or carry them ashore with reasonable effort. All that were built at St Mawes were built two at a time, but in thirty years of experience with them I have yet to find two exactly alike.

Some reasons for their lasting over a hundred years are to be found in the fact that the Peters family always felled their own timber, carefully selected, well seasoned and sawn a year before use. Each shipwright carried a bottle of whale oil and each joint received a liberal application by means of a feather. All driven copper nails were notched like a fish hook with a chisel before use. The gigs are built without a hog-piece and the garboard planks are merely rabbeted into the keel and skew nailed. The Peters family maintained that this gave greater flexibility, and with frequent launching often over rocks and rough shore prevented leaking. This statement is borne out by the fact that to this day fishermen at small Cornish coves, particularly Sennen, who have to be constantly launching and pulling up their boats, insist on a boat with no hog-piece for the same reason.

After hearing that the original moulds of the pilot gigs had been discovered, I took a scale drawing of the *Newquay* to Mr Peters. By measurements taken from the drawing he was able to select some of the moulds and kindly brought them to Newquay for comparison with the gigs.

After some hours of careful measurement and fitting he could declare that four of the moulds were four of a set of five that were an exact match to the lines of the *Newquay*, and were most probably used to build her, and, in his opinion, that was about 1810.

As many as five different curves have been added to some of the moulds, particularly the centre one, to make some alteration in speed or carrying power, and the *Newquay* fitted the original curve. These moulds were fastened in some cases by very old-fashioned iron nails that had been made by the local blacksmith.

Mr Peters examined the *Newquay* and was certain that no other person than a Peters could have built her, and said that the notched timbers were something only to be found in their craft. So expert were they in gig building that they knew exactly where to cut each timber before steaming it, and when placed into position the notches made exactly fitted every overlap of the clinker building. Most of the notched timbers have now been replaced in all the gigs, but some still remain to show how well they fitted. The original fastenings were riveted over small squares of copper cut from a sheet and not over manufactured rooves.

To revert to Oke's draught of the *Newquay*, I regret to have to venture the opinion that he was misinformed as to the builder. He states 'builder Peter Ferris about 1820 St Mawes'. In company with Mr Peters I have searched for confirmation of this but cannot find that a Ferris ever built a six-oared gig or in fact ever owned a yard at St Mawes.

From information I have gathered, the *Newquay* was one of three gigs built for shipment to Bassein. Two were transported there and were still in use in 1937, the third one had to be left and was sold to Newquay. According to Mr Peters's grandfather, this was in 1810.

A further mistake in the draught is the angle at which Oke has placed the foot rests which are locally called 'stretchers'. They should be in exactly the opposite directions. The reason for the angled footrests is that long oars are used, up to 16 feet, and the oarsman has to wedge himself into the knees to maintain a mastery over his oar, especially in a heavy sea. Hand split oak thole pins are used.

One of the moulds which was examined at Newquay bore pencil writing 'pilot gig for Mr Banfield, Scillies'. Another bore the words 'Defiance, St Ives'; but no one at St Ives can remember a gig called this, although a *Defiance* raced in a regatta held at Newquay in 1835.

A further article of some antiquity, which Mr Peters presented to the Newquay Rowing Club, was a section of wash-strake for a pilot gig bearing the marking Larboard III. The piece produced exactly fitted the sheer of the *Dove*, although none of the *Newquay* gigs had ever been fitted to carry a wash-strake.

It has always been a conjecture as to why the thwarts of a pilot gig were so thin and supported by a central pillar, which gave them a decided upward curve. In the first gigs to be built heavy rigid thwarts were fitted, and on occasion when coming alongside a vessel the severe contact often made in rough weather forced the end of the heavy thwart through the quarter-inch planking of the side. To overcome this the thin thwarts of American elm were used, with the central pillar to give the curve, so that any lateral impact would bend the thwart instead of fracturing the planking.

These central pillars are one of the most important features of the gigs, so much so, that the Newquay Rowing Club has a rule which states 'that coxswains must see that all thwart pillars are in position before setting out'. These drop out occasionally through the gig's flexing on being carried and the loss of the lateral support caused by the thwart then becoming limp, makes the gig leak in the bilge planking.

Years ago there were other gigs owned at Newquay, the *Zoe Treffry*, afterwards renamed *Teazer*, was sold in 1915 for a sovereign and ended her life upturned as the roof of a fowl house. One in the records called *Girl I Love* seems to have vanished without trace, others mentioned are *Arrow* and *Constance* (Padstow) *Circe* (Truro) and *Rose* (Hayle).

St Ives was once the home of St Mawes' built pilot gigs. The *Guide* was lost when putting a pilot aboard a steamship through the ship rolling on to her. The *Richard* was sold to north Somerset and was taken there on the deck of a ketch about sixty years ago. The *Silver Spray* was badly burned in a fire at the Pilot's Boathouse, St Ives, in 1917, and had to be condemned. The *Branch* was blown off the quay in the early twenties and was written off. *Teazer* and *Forester* were two others that also seem to have just vanished.

R. H. C. GILLIS

NELSON'S HISTORIC SIGNAL

As the 150th anniversary of the Battle of Trafalgar draws near it may not be out of place to call attention to some discrepancies that have occurred in recent times with regard to Nelson's Imperishable, or Memorable, or Immortal Signal, 'England expects that every man will do his duty'. If a popular legend is repeated often enough it will soon come to be taken as authentic. It is only latterly that the sayings attributed to the Duke of Wellington, 'Up guards and at them', and 'The battle of Waterloo was won on the playing fields of Eton', have been proved to be not only out of character but probably impossible. By the same method of constant reiteration an old threadbare story of Lord Nelson has within the last twenty or thirty years gained a good deal of ground, and is coming to be regarded as a genuine incident. Among modern authors who have taken liberties with the facts are some having claims to being naval historians of repute (including even former councillors of the Society for Nautical Research!), but the truth is that *somebody* started the ball rolling and it is becoming harder and harder to overtake those falsehoods which have been copied by one writer after another.

There is no need to depart from the true statement of facts made by the signal officer of the *Victory*, Lieutenant John Pasco, who by desire gave the details publicly more than once. It was that the admiral dictated the famous message in the words 'England confides that every man will do his duty', but upon Pasco pointing out that the word 'confides' was not in the vocabulary, the word 'expects' was substituted. That was the only substitution. About twenty years after the battle William James published his book *The Naval History of Great Britain*, in which he invented the story that the Commander-in-Chief had originally dictated 'Nelson expects. . .', and that at the suggestion of some officer standing by, and for the same reason as the real substitution, namely that the word 'Nelson' was not in the signal book, it was then that the version 'England expects. . .' was conceived. This story remained almost dormant for many years and it is extraordinary that it should have been revived recently, which can only be owing to people having gone to James for their information instead of consulting some reliable authority such as Nicolas. Some modern writers have defended the false version on the pretence that it was 'so very typical of Nelson' and his egotism and his personal enthusiasms. On the contrary, it would have been little in keeping with his well-known views on discipline and dignity to have addressed his ships' companies barely as 'Nelson'. He might have said 'Lord Nelson', which to obviate the limitations of the code book, could have been amended by the mythical bystanders as 'The admiral expects. . .' or something of that sort.

When it comes to evidence, neither James nor anybody else has been able to say who the mysterious onlooker was who made the suggested substitution of 'England' instead of 'Nelson'.

It is perhaps significant that Sir John Knox Laughton, who wrote many of the articles in the *D.N.B.*, should have characterized the James version in this connexion as 'mere gossip'.

Further unauthentic versions of the message include the words 'this day', or omit the word 'that'. Fortunately the correct wording, together with the signal code groups, was written down in various logs during the battle.

HILARY P. MEAD

SISTER (SUSTER)

Here are some more examples, mostly taken from the Exchequer Accounts, of the word *sister* or *suster*, discussed in *M.M.*, Vol. XL, p. 235.

1409-11. E 101/44/17. French membrane: . . . xxj. Polives sheved vij. Polivestokkes sanz sheves ij. peire Susters iiij. Boltes de fferre pour trussing vne Mustardquerne. . . . *Ibid.*: . . . vn Bowespret oue ij. Polyves vn Rakke oue ij. Sustres vn Trusparail'. . . . *Ibid.* m. 7: j. bowesprit cum ij. polives j. Rakke cum ij. susters iiij. forsteys. . . . *Ibid.* m. 8: vij. polyvestokkes ij. sustres ij. girdynges ij. Rakkess. . . . *Ibid.* m. 9: vj. trusparail' ij. steys j. trefet de ferro vj. susteres ij. stropes. . . .

1419-22. E 101/49/29, m. 11: . . . iiijor pulleys gross' ij. susternes iiij. lantern' ij. pulleyes enenis pro les Gires. . . .

1420-1. E 364/54 D: Idem computat in . . . iiij. pulleys gross' ij. Susternes j. kittil' viij. lanternis ij. boxes j. magna lanterna ix. Shoueles vj. scopes ij. pulleys enenis pro lez Gires. . . .

1426-7. E 364/61 K d.: iiij. pulleys gross' ij. Susternes ij. pulleys enenis pro les Gires. . . .

1466. *Manners and Household Expenses of England in the 13th and 15th Centuries*, p. 210. Item, for a trusse parelle, and ij. smale parelles, xx.d. Item, for iiij. trusse polyves, viij.d. Item, for viij. cheynes, vj.d. Item, that he paid owt of his pur[se] for fecheunge owt of the tymbre, xiiij.d. Item, for ij. systers for the mayn pareylle ij.d.

Suster is a regular development of Old English *sweostor* with loss of *sw*, *sister* is due to Scand. influence (Old Norse *systir*). The plural *susternes* in E 101/49/29, E 364/54, and E 364/61 (these accounts are dependent on each other) is either, and most probably, a mix-up of *sustren*, the common Middle English weak plural in *-n*, and the regular *s*-plural, or else the scribe has been thinking of a different word altogether, e.g. *cistern* (note the proximity of *kettle* in E 364/54; the form of *lanternis* may also have influenced the scribe).

Sister is evidently the name of a fitting that has two (? or more) identical parts, complementing each other, in the same way as *sister-block* and *sister-hook* are a sort of double block and double hook. The quotations leave no doubt that it is connected in some way with, or is part of, a parrel, but the exact meaning is hard to pin down. From pictorial evidence we know that parrels in the form of a rope with trucks, resembling a chapelet, existed at, and before, the time when we first come across the term *sister*. The rib and truck parrel is evidenced from the latter half of the fifteenth century. The combination *rybbys* and *susterys*, quoted by Dr R. C. Anderson (Vol. XL, p. 235), puts a very strong case indeed for the meaning 'truck' of *sister*, seeing that *rib* is well authenticated from the early seventeenth century onwards in the sense 'rib of a parrel'. On the other hand, as is pointed out by Dr Anderson, the word *sister* immediately brings *sister-block* into one's mind. However, that word seems to be rather late: I have no instance earlier than the eighteenth century.

As mentioned above, sisters occur in pairs and the entry 'xxix. Rybbys iiij. Susterys' should doubtless be read as '29 ribs, 3 pair of sisters'. This points to some special arrangement of the trucks (if such they are). I also believe that the sisters were bigger than the trucks of later times. The *Treatise on Rigging* of 1625 defines a parrel as 'framed of a Rope, Truckes and Ribs or sisters'. Here *sister* seems to be synonymous with *rib*. Perhaps we should read 'sister' as the alternative of 'trucks and ribs'; in other words, parrels could either consist of a rope with ribs and trucks, or of a rope with sisters. Then, as the latter contraption became old-fashioned, the word would disappear.

In *M.M.* Vol. IV (1914), p. 283, Dr Anderson draws our attention to an interesting parallel in French and Italian, where *patres* is used in the sense 'truck'. See Jal, *Glossaire Nautique* s.v.

pater, e.g. 'Morceaux de bois arondis et percée en forme de gros grains de chapelets, nomez Patres, qui font le tour de l'arbre; l'on en met un rang de neuf dans chaque branche du doublin.' This is short for *pater-noster*, and refers to the similarity of the trucks to the beads of a chapelet.

BERTIL SANDAHL

QUERIES

18. (1955.) SACK SHIP. I would be most grateful for any information concerning the origin of the term 'Sack Ship' as applied to certain vessels engaged in the Newfoundland trade of former times.

EDWIN F. J. MATTHEWS

19. (1955.) PETTY OFFICERS. The earliest date at which I can find this term used occurs in a letter from the Admiralty to the Navy Board dated 16 February 1710/11 (N.M.M.A./1994, f. 1808). Has any reader met with an earlier reference? The older term was 'inferior officers', and this continued to be used at least until about the beginning of the eighteenth century (e.g. a table showing 'The Establishment of Inferior Officers for each rate of ship' dated 1 September 1697). I have also seen an intermediate form, 'small officers', in several letters (e.g. 27 April 1709, N.N.M.A./1972), though the older term 'inferior officers' occurs in a letter from the same source dated three days later than that just referred to. It seems evident that, like most changes, the adoption of the new form was gradual and that all three terms continued in use contemporaneously for some years.

R. D. MERRIMAN

20. (1955.) SHIPS 'IN COMMISSION'. The term begins to appear in official correspondence about the end of the first decade of the eighteenth century. The older form was 'in sea pay'; but I have found a reference to 'ships in commission' in a letter from the Admiralty to the Navy Board dated 20 March 1707/8. Can any reader supply an earlier reference?

R. D. MERRIMAN

21. (1955.) H.M.S. *FAVOURITE* (1806). On the 20 September 1806, the *Ipswich Journal* announced: 'Saturday last a fine sloop of war called the *Favourite*, mounting 18 guns and 8 carronades was launched from Mr Bailey's yard in this town.' Was this vessel subsequently renamed? The *Victoria County History* of Suffolk lists the warships built at Ipswich in that year as the sloops *Julia* and *Sappho*. In any case, the armament seems heavy for a sloop, but one cannot believe everything one reads in the Press.

22. (1955.) H.M.S. *SEAGULL* (1808). According to the *Ipswich Journal* (5 November 1808): 'Thursday a new sloop of war, called the *Seagull*, of 18 guns, was launched from Mr Bailey's ship yard, in this town.' Was she later renamed? The *Victoria County History* of Suffolk lists the warships built at Ipswich in 1808 as the sloops *Drake*, *Jasper*, *Onyx* and *Rosario*, but this may not be correct.

H. W. MOFFAT

23. (1955.) DRIFTING LIGHTERS. Well known on the River Thames are the big Drifting Barges or Lighters controlled by means of Sweeps or Oars, man-handled in a standing position.

Can any one give the history of the use of this type of river-craft on the Thames or on other rivers in the past?

It would be very interesting to know of any variation, through the ages, as size of craft, number of men employed in each vessel, and the shape and size of the type of sweep or oar employed.

W. ADAM WOODWARD

24. (1955.) THE HORN. I came across a review of a book entitled *Sailing Round Cape Horn*. Conrad says that no sailor would have said otherwise than *The Horn*, without using the word *Cape*. Is that no longer true? or is the above-mentioned title a convenient concession to the general reader?

GUILLEUX LA ROËRIE

25. (1955.) SPLICE THE MAIN BRACE. Can any of your readers tell me the origin of the term 'Splice the main brace' when applied to the issue of an extra rum ration?

GEORGE THOMSON

26. (1955.) JOHN FLETCHER AND THOMAS TREVERTON. The Director of the Museum, The Castle, Kalmar, Sweden, would be obliged for any information respecting John Fletcher and Thomas Treverton, ship-builders of British origin who are known to have been connected with Oskarshamn, Sweden.

MAURE HOFREN

27. (1955.) PADDLE-WHEEL CRAFT IN CHINA. In a book by the late Sir Frederick Treves, the famous surgeon, called *The Other Side of the Lantern*, published about 1905, there are some very fine and vivid descriptions of life as it was then in China. Writing about the river life at Canton, he mentions seeing a vessel with a stern paddle wheel turned by quite a large number of coolies working a sort of treadmill arrangement.

Can any of your readers give some details of this method of propulsion? W. A. WOODWARD

28. (1955.) MAILS FROM SYDNEY. For those who trace the careers of ships during the last century in Australasian waters, the following curious practice obtaining at Sydney may prove of interest. In the *Australian and New Zealand Gazette* of 20 September 1851 (p. 398) which quoted the *Singapore Free Press* of 18 July 1851, it was stated that a ship called the *Golden Spring* arrived at Singapore on 7 July 1851 from Sydney, having left on 30 May, but that she had brought no mail. The quotation went on to say that she 'cleared out for Guam, one of the Marianas (a step usually resorted to when vessels from Sydney do not wish to be troubled with a mail), . . .' Another vessel called *Hannah* also left Sydney in the same month for Guam, and I have noticed several ships as having cleared for that port amongst the departures listed in Australian newspapers in that year. It would be interesting to know when this practice was adopted, how long it lasted, and whether it occurred in other parts of the world.

DAVID R. MACGREGOR

29. (1955.) SETTING OF STUNSAILS. I have a water colour by one of the Roux Marine artists showing a broadside view of an English frigate of about 1815 sailing dead free under all plain sail less Mainsail, Royals and Spanker but with *port* lower and topmast stunsails on the fore, and *starboard* lower and topmast stunsails on the main. Taking into consideration the usual accuracy of the artist, was this a normal arrangement in setting stunsails or perhaps an extempore one which the artist wished to record? The legend at the bottom margin of the picture only reads:

'Frégate Anglaise, vent arrière. Vue par le travers'.

Note. She is flying the Red Ensign and Pennant; 14 guns on the broadside.

CLAUDE CUMBERLEGE

30. (1955.) ARABIC INFLUENCE ON CHINESE CRAFT. The September copy of *The Geographical Journal* (Vol. cxx, part 3) contains an article by Wilfred Thesiger on 'The Marshmen of Southern Iraq', illustrated by very good photographs.

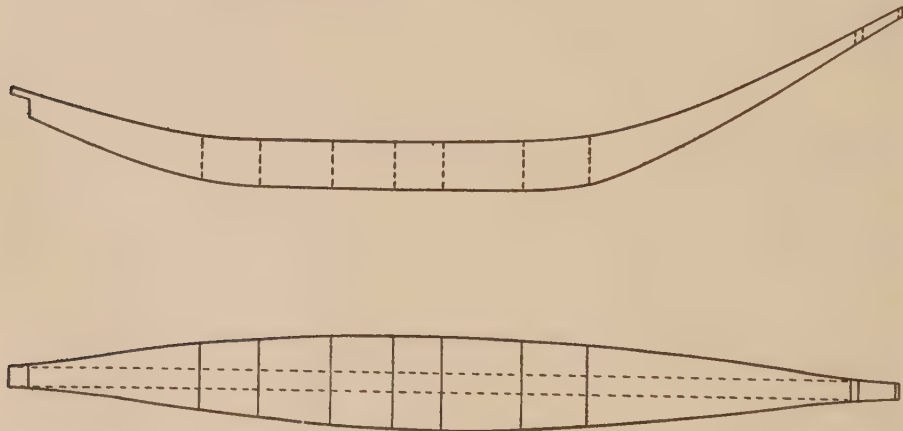


Fig. 1

I am interested in the Arab influence on Chinese naval architecture and was at once struck by the resemblance between the *Tarada*, once the war canoe of the marshes, and the true sampan (three planks—literally) found at Samchau Inlet in China (lat. $22^{\circ} 44' N.$, long. $114^{\circ} 57' E.$).

The extraordinary bow provides a platform on the slippery clay banks of the inlet and no doubt knives its way through reeds when hunting or fishing.

I would like the opinion of members, through the medium of 'Queries' in the *Mariner's Mirror*, as to whether this type was evolved through topographical similarities or by introduction from Arab sources. I have not seen a similar craft elsewhere in China.

A sketch to scale is given below.

I. MACROBERT

31. (1955.) PRAM. How old is the English use of 'pram' as a type of boat? Presumably it derives from the Dutch 'praam' which, I believe, is a flat-bottomed boat rather than the rocker-shaped Norwegian type. My query is prompted by a reference in the *Bristol Mercury*, of 28 May 1853 where the writer described a local ferry boat as a 'prame'.

GRAHAME FARR

32. (1955.) 'OCULI'. When I built the wooden yacht *Melmore* in 1928, I got a leading London sculptor to design me two bronze eyes. These measured 3×3 inches and were purely ornamental; they were screwed 1 foot from the stem and 1 foot below the rail. I have never been to China and these were more human than I understand the Chinese eyes are. Have any other yachts in this country got eyes?

FRANK GILLILAND

33. (1955.) CANADA'S PROVINCIAL NAVY. The Maritime Museum of Canada, Halifax, Nova Scotia, is anxious to obtain more details concerning the uniform and buttons worn by officers of the Provincial Navy or Provincial Marine which formed the naval defence of the Lakes of Canada from the Seven Years' War to 1813.

In *Travels through the States of North America and the Provinces of Upper and Lower Canada During the Years of 1795, 1796, 1797* by Isaac Weld, Junior, p. 285 (London, 1799), the following description occurs: 'Their uniform is blue and white, with large yellow buttons, stamped with the figure of a beaver, over which is inscribed the word, "*Canada*".' Where can further details be obtained, and do any of your readers know if examples of this uniform exist today?

L. FARRINGTON

34. (1955.) ROBERT THORNTON. Is anything further known of Captain Robert Thornton who, in 1608-9, made a voyage from Leghorn to the Orinoco in the service of Ferdinand I, Grand Duke of Tuscany?

A short account of this voyage is given by Sir Robert Dudley (1573-1649) in his *Arcana del Mare*, the first edition of which appeared in 1646. John Temple Leader, in his *Life of Sir Robert Dudley* (Florence, 1895), quotes the following, translated from the Italian of Anton Francesco Lucini, editor of the second edition, 1661:

'This said Captain went and happily returned, and although he had never before been in those parts, or even in the West Indies, nevertheless by the aid of the charts and instructions given by the author's (i.e. Dudley's) own hand, and by the grace of God, he completed the voyage without losing a man, and discovered the coast of Guiana more fully and more exactly than it had ever been known before. He also discovered the good port of Chiana, which is a secure, royal harbour and had never in times past been seen by Christians; and from here he brought with him five or six Indians, with the intention of presenting them to their Highnesses of Florence, which he did—the which are those Caribs who eat human flesh.'

The Indians all died in Florence except one who lived for several years and learnt to speak Italian.

J. W. D. POWELL

ANSWERS

4. (1952.) FRENCH NAVAL TRANSPORTS *EUROPÉEN*, *WESER* and *JAPON*. *Européen*. Built at Carlsdyke by Scott and Co. in April 1855 for Robert Henderson and others. An iron screw vessel 305.0 × 38.2 × 25.4 feet, gross tonnage 2359.89, burthen tonnage 883.12. She was sold to W. Mackenzie on 13 August 1858 and by him to T. S. Begbie on 3 December 1859. Sold Foreign 11 January 1860. Her sister ships were *Columbian*, sold to the P. & O.S.N. Co. and *Australasian*, bought by Charles MacIver.

Japon. Built at Greenock in 1858, possibly by Scott, for H. F. Tiarks. She too was an iron screw vessel 320.6 × 40.0 × 17.4 feet, gross tonnage 2667.10, register tonnage 1813.63. Sold to French Minister of Marine 10 January 1860. Although *Weser* has not been traced amongst British registered ships, there was one other steam vessel that was acquired by the French Government at the same period, *Elizabeth Jane* built at Glasgow, probably by J. and G. Thompson, in January 1857, for William Marr 211.5 × 30.6 × 18.0 feet, gross tonnage 858.07, register tonnage 700.18. Sold to J. and G. Thompson on 3 July 1858 and by them to T. S. Begbie on 24 July 1858. Sold at Brest to French Government 21 May 1859.

C. E. C. TOWNSEND

4. (1955.) O'BRIEN AND PORCEL. There are references to Philip and James Purcell, but not to O'Brien, in Dr J. A. Williamson's *English Colonies in Guiana and on the Amazon*, 1604-1668 (1923).

J. W. D. POWELL

4. (1955.) O'BRIEN AND PORCEL. For some account of James Purcell and Bernard O'Brien, and the English, Dutch and Irish colonizing expeditions in Guiana and the Amazon in which they were involved, see J. A. Williamson, *English Colonies in Guiana and on the Amazon*, 1604-1668 (Oxford University Press, 1923), which, in its turn, is largely based on G. W. Edmundson's well-documented articles on the same subject in the *English Historical Review*, Vols. xvi-xviii. Additional information concerning these two adventurers is to be found in the following Brazilian works: F. A. de Varnhagen, *Historia Geral do Brasil antes da sua separação e independencia de Portugal*, Vols. II and III, where their names are duly indexed (the 3rd edition of this work was published about 1930, and the 4th in 1949); *Anaes do Museu Paulista*, Vol. II, parte I, pp. 31-35 (São Paulo, 1923).

In addition to the information recorded in the above-mentioned works, there is some unpublished material relating to abortive Irish endeavours to found a colony with the consent of the Portuguese government in the Maranhão in the sixteen-forties. This correspondence is preserved in the minutes of the Conselho Ultramarino, or Overseas Council, at the Arquivo Historico Ultramarino, Lisbon, 'Livros das Consultas Mixtas', Codices 13 and 14. Apparently, the idea was to transfer Irish and English Catholics from St Kitts to the Maranhão. At one time, King John IV gave his consent to this project, despite the violent opposition of some of his councillors, who pointed out that although the Irish were very Catholic they were also very pro-Spanish; but in 1647 he seems to have thought better of it. Bernard O'Brien was nicknamed 'Bernardo del Carpio' by the Portuguese and Spaniards, after one of Charlemagne's champions. The leader of the projected Irish expedition to the Maranhão in 1644-47, is called 'Guilherme Brum' (= ? William Brown?).

C. R. BOXER

10. (1955.) THE EARL OF DUNDONALD'S INVENTION. A full description of the Earl of Dundonald's 'revolving' engine will be found in the *Report of the Select Committee on Steam Navigation to India*, Sessional Papers 1838 (478) xiv, Appendix no. 20, and Plates 7 and 8. Lord Dundonald stated in his evidence, pp. 203-5, 'having invented a revolving engine and caused several to be constructed . . . a pair of these engines I had in a boat during nearly two years and I have placed a larger engine in a larger boat . . . These two vessels may well have been *Revolution*, built at Limehouse by Samuel King in 1832, of 7½ tons burthen and *Aerolite*, built at Cowes by Joseph White in 1833, of 14 tons burthen.

C. E. C. TOWNSEND

REVIEWS

THE VIKING SHIPS: THEIR ANCESTRY AND EVOLUTION. By A. W. BRØGGER and HAAKON SHETELIG. Oslo, 1953. 9½ by 6½ inches; 250 pages, illustrated 25s. (Distributors, Edward Stanford, Ltd.)

This important book was first published in Norwegian in 1950; the present English edition is said to lack 'details of purely Norwegian interest', but to have a greatly increased number of illustrations. Unfortunately the translation is not up to the standard of the book's production. It is clearly the work of someone translating *from* his own language, not *into* it, and though perfectly intelligible, remains vaguely irritating.

It requires some audacity to dispute the conclusions of those who may fairly be described as the 'big names' of the subject, but this cannot honestly be avoided. The process of improvement from the Hjortspring (or Als) boat of about 100 B.C. to the Gokstad ship of 1000 years later is clear enough, but the question is, from what was the Hjortspring boat itself derived? According to Professor Brøgger, who writes this part of the book, it was from a skin-boat like the Eskimo umiak. The more usual belief that one has to turn to the dug-out to find the ancestor of the clinker-built boat is dismissed somewhat brusquely as 'mere deskwork'. It is acknowledged that there were such things as prehistoric dug-outs as well as skin-boats, but these more solid craft are kept firmly in their place inland and not allowed to have any share in the ancestry of sea-going boats from the coastal settlements.

Professor Brøgger admits that 'the transition from wood to skin (*sic*) will not be easy to explain well' and this seems a very marked understatement; certainly he does not attempt an explanation. Surely the Hjortspring boat with its *dug-out ends* connected by planks is far more likely to have been developed from a simple dug-out than from any sort of skin-boat.

It is strange that there should be no mention of the North Ferriby boats, although these had been described in detail three years before the appearance of this book in Norway. Possibly they were considered to be too obviously derived from the primitive dug-out to be fit for inclusion, and yet it is hard to ignore the similarity of the perforated cleats on their planks to those of the more lightly built Scandinavian vessels.

Professor Shetelig, who has written the chapter describing the chief ship-finds of the Viking period, those of Gokstad, Oseberg and Tune, considers it 'a little misleading that they should be popularly called Viking ships' and describes them as 'not built for warfare, nor for voyages in the high seas'. He goes on to say that 'ocean-going craft such as those used on the Viking raids were undoubtedly built on the same lines as the Gokstad ship' and in this he is probably right, but there must have been differences and of these we know next to nothing. What we need is to find a real Viking ship or even one of their larger successors.

For our scanty knowledge of these we depend entirely on literary evidence. Professor Brøgger devotes a chapter to them and it is interesting to compare this with what Nikolaysen wrote in 1882, to accompany the first description of the Gokstad ship. One very noticeable discrepancy is in the length ascribed to the 'ell'. According to Nikolaysen it was not, as it was later, equivalent to 2 Danish feet (0.62 m.) but 1½ ft. (0.47 m.). Brøgger makes it 1¾ ft. (0.55 m.). When we come to such measurements as the length of the *Long Serpent's* keel—one of our few landmarks—the difference is important.

We are given a new version of the story of Thorberg's unauthorized improvement to the *Long Serpent* in 999. 'According to tradition he went out to it by night and cut new joints in the stem and stern posts, to get more play in both from the strakes upwards.' When we consider that the ship was already completely planked, this becomes quite incomprehensible. Captain Lovegrove's explanation, given in the *M.M.* in 1932, may or may not have been correct, but it was at least one which could be understood.

Two very large vessels mentioned by Nikolaysen find no place in the present book. One is Canute's great ship of '60 rooms' and presumably 120 oars, the other is the 45-room ship said to have belonged to the Bishop of Bergen in 1339. Professor Brøgger does indeed mention Bishop Haakon as owning ships at this exact date, but describes them as quite small; it may be that Nikolaysen's reference was based on some misreading of documents. The matter of Canute's ship remains. Did she ever exist and what is really known about her? Many modern writers have referred to her, but it has probably been largely a matter of copying from one another. If someone well acquainted with the relevant literature would look into this question and also the story of Thorberg and the *Long Serpent*, he would earn our gratitude.

R. C. ANDERSON

CATALOGUE OF THE SCOTT COLLECTION. (Institution of Naval Architects.) By BETTY M. COPPER. 1954.

John Scott of Greenock, who died in 1903, had been for more than 50 years an active member of the firm now known as Scott's Shipbuilding and Engineering Co. Ltd., whose history goes back to 1711. Besides his many business and public activities he was a great collector of books and one section of his library was devoted to shipbuilding and kindred subjects. This section was not sold with the rest in 1905, but was kept in the family until 1921, when it was lent to the Institution of Naval Architects, the loan becoming a gift in 1930.

Until now the only guide to the contents of the Scott collection has been the sale-catalogue, necessarily sparing in detail; now we have a really adequate description with all we need to ask for in the way of notes.

R. C. ANDERSON

SOMERSET HARBOURS. By GRAHAME FARR. Published by Christopher Johnson Ltd. 12s. 6d. net.

Two volumes of this series of books about the harbours of some of the counties which border on the sea have already been reviewed in the *Mariner's Mirror*. Somerset harbours is the most recent, and is by a member of the Society, Mr Grahame Farr, who certainly knows his Somerset, at any rate the coast line of that pleasant county. But like the companion volumes there is a feeling of sadness running through the whole story of these havens for the simple reason that so many of them are dead or dying; what used to be busy little ports with the same vessels coming regularly month after month are now for the most part silted up, with quays derelict and grassgrown. Of course there are exceptions but speaking generally trade now goes to one big port like Bristol from which place the goods are distributed by lorry and to which place goods for export are brought by lorry; formerly they were brought by sea. Mr Farr, naturally, has a lot to say about Bristol, which seems to be as flourishing as a sea port in these days as it was when it gave the phrase 'Ship-Shape and Bristol fashion' to the English language. Not that this major port has taken all the trade from some of the lesser ones. Bridgwater and Watchet Mr Farr thinks still have a future and judging by the figures he quotes this seems very likely. But these days size is everything and where forty years ago a dozen or so small schooners or ketches would be in a harbour now the same quantity of goods is brought in by one steam or motor ship; this gives the place a deserted look, especially to those who can remember the old days. Mr Farr has written clearly and entertainingly of the Somerset coast and it is evident he knows and loves this part of the world, and he has managed to convey this so well that he has made one reader at any rate wish to explore and know some of these old and deserted harbours and the countryside that surrounds them. There are sixteen good photographs by various people, including the author, and three very pleasant line drawings by Frank W. Shippides. A map of the coast would have been a useful addition but that one supposes would have considerably added to the cost; a useful index closes the volume, which is nicely got up and is quite worthy of the previous books in this series in every way.

H. O. HILL

SOPRANINO. By PATRICK ELLAM and COLIN MUDIE. Rupert Hart-Davis, London, 1954. $8\frac{3}{8} \times 5\frac{3}{8}$ inches; 222 pages; 13 photographs; 6 maps and diagrams. 16s.

This is the lively story of the voyage of a 20 feet ($17\frac{1}{2}$ on the waterline) boat across the North Atlantic. Deep-sea yachting stories have appeared in such numbers in recent years that there is inevitably a certain monotony about them, increased by the fact that not all their authors can write. But this little book is refreshing. The voyage was experimental—many readers will find the first three chapters which describe its origins the most interesting part of the book—and a properly and thoroughly planned adventure. So there are no heroics, but a great deal of sound common sense, particularly in the Appendix.

BASIL GREENHILL

IMAGO MUNDI: A REVIEW OF EARLY CARTOGRAPHY. Edited by LEO BAGROW. Vol. x. Henry Stevens, Son and Stiles, 1953.

The tenth annual volume of *Imago Mundi* is of special interest to readers of *The Mariner's Mirror*, for two of the most important articles are devoted to early maritime charts, and one of these is illustrated by facsimiles of all the charts in Freducci's Atlas of 1556. It is accompanied by a long and learned critical discussion of two families of Italian cartographers by Guiseppe Caraci, written like all the contents of the volume in English. Italy is also represented by a study, made by Mr George Kish of Ann Arbor, of the splendid mural atlas painted about 1574 in one of the great reception rooms of the Farnese Palace at Caprarola, near Rome. Most of the originals of these maps can be found in one or other of the collections put together by contemporary map publishers which are known as Lafreri Atlases. The painter was Giovanni Antonio Varese, who carried out somewhat similar work at the Vatican. The second article of specific maritime interest is that by the well-known Portuguese authority, Armando Cortesão, who writes on a North Atlantic chart of 1424. The chart is reproduced, on a slightly reduced scale, in full colour. It was discovered only a few years ago in the immense, and still uncatalogued, residue of the manuscripts and books collected by the late Sir Thomas Phillipps (1792–1872) which is very slowly being dispersed. The interest of the chart lies in its being apparently the earliest to depict the two large imaginary islands, Antilia and Satanaxes, which appear on a number of later maps. Senhor Cortesão is convinced that these were not, in fact, imaginary at all, but represent actual landfalls of sailors who crossed the Atlantic before Columbus. To prove his point he brings forward a wealth of argument which many will find convincing, and it is indeed the fact that maritime charts were made with very meticulous care, and that the chart-maker put down nothing for which he did not believe there was good evidence. And once an island or a shore-line was placed upon a chart in good faith there it was likely to remain, so that mistakes were perpetuated, including mistakes made by one draughtsman in copying from another. The Orkney Islands, for example, can still be seen as a single large circular island in the Freducci Atlas in this volume of *Imago Mundi*, while when the French engravers reproduced Halley's magnetic chart in the latter part of the eighteenth century, the legendary islands of Brazil and Maida were still to be seen in the Atlantic Ocean. Some will remember, too, an Isle of Buss, engraved with careful detail on one of the early Pilot Charts produced by John Seller in the days of Charles II, or the still earlier Frislandia, complete with place names, which haunted the sixteenth-century atlases. The fifteenth-century sailor no doubt believed in Antilia, and it played its part in the History of Columbus. But had any ship really reached Florida or Cuba before 1424?

E. G. R. TAYLOR

MANUAL OF SEAMANSHIP, Vol. III. London: Her Majesty's Stationery Office, 1954. $9\frac{1}{2} \times 6$ inches, 484 pages, 160 illustrations. 12s. 6d.

Vols. I and II of this work were reviewed in the *Journal* in February 1952 and May 1953 respectively. The official date of the whole *Manual* is 1951 but some years have necessarily elapsed before it was finished. The third instalment brings this important series to full completion. As with the preceding parts the cost to the public is ludicrously low, and one would like to know where else so much value could be found for twelve-and-six! It is stated that Vol. III 'comprises information on the more advanced aspects of seamanship, and is intended as a book of reference for seamen of experience'. Among the nineteen chapters mention might be made of those dealing with Salvage Operations, Wreck Disposal, Tonnage Measurement, Ship Stability and Cargo Stowage as examples of advanced information for experts, and the book indeed will primarily appeal to executive officers of Her Majesty's ships who are confronted with major problems under these headings. The general reader who takes up the book for interest will inevitably be drawn to the section connected with Survival and Rescue which so vividly reminds one of the heroism in peace and war of those seafarers who have been cast adrift in open boats, and after many days of suffering found themselves stranded on some strange coast; a particular case which seems most apposite is the splendid saga of the two ship's lifeboats belonging to the *Trevesa* which came safely to land after sailing some 1700 miles. It is an original feature in a book of seamanship to provide instructions and advice on how to proceed after abandoning ship, and all this is not only important and valuable, but of great interest in teaching how to identify such things as harmful fish and venomous shells which are here well illustrated. With regard to survival, incidentally, we are not told whether boats should keep together after abandoning ship. Or is this just another of those problems that can only be solved in its particular circumstances? The *Trevesa's* boats deliberately parted company on the fifth day because they thought the chances of being found would be multiplied. No appropriate air search had been possible in 1924, but would their chances to-day have been improved by separation? It remains to be seen whether the last word has been written about drinking sea water, of which it is said in the *Manual*: 'On no account should anyone drink sea water or even rinse out his mouth with it; anyone attempting to do so should be forcibly restrained.' At the time of writing this I read in the Press that ten experimenters from the French navy are having a daily ration of four pints of sea water, supplemented by any raw fish that they can catch; then it is stated that they have subsisted so far on 50 grams of sea water every 90 minutes.

The 1948 Regulations for Preventing Collisions at Sea are printed again as a separate chapter although they were very adequately dealt with in Vol. II. This makes it look as though Vol. III is meant to be independent, yet it frequently refers to Vol. II from which it seems that the seaman must have both these parts, if not all three volumes. Remarks on the officer-of-the-watch in harbour (chapter I) include the duties of the midshipman-of-the-watch, but I believe this young gentleman has been abolished, probably since Vol. III was written. In the chapter on cargo stowage 'dholls' are referred to, but this word is not included in the excellent glossary of cargo terms, and I have been unable to find it even in Baron de Kerchove's exhaustive and comprehensive international work. Smyth gives the definition: 'Dholl. A kind of dried split pea supplied in India to the navy', but I am afraid this does not fit in with the context in the *Manual*, and I am still mystified.

H. P. MEAD

Vol. 10 onwards at 10s. 6d. each (postage 5d.). The index will be supplied free to purchasers of a complete volume or sold separately for 2s. each.

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